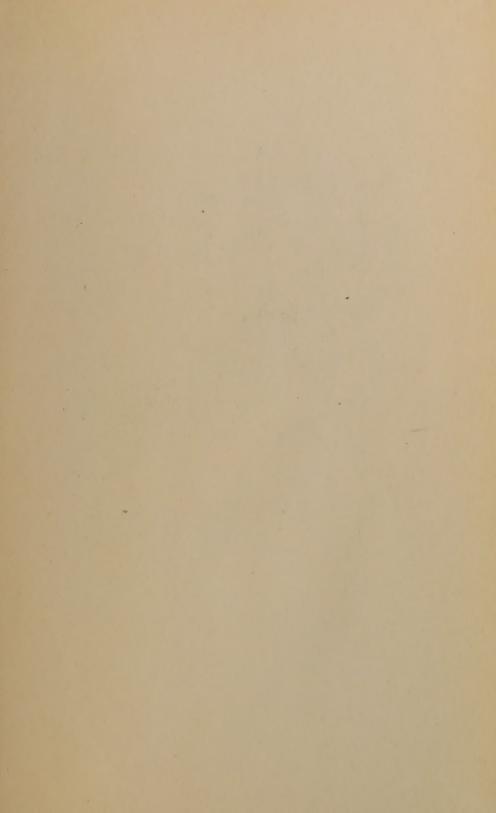
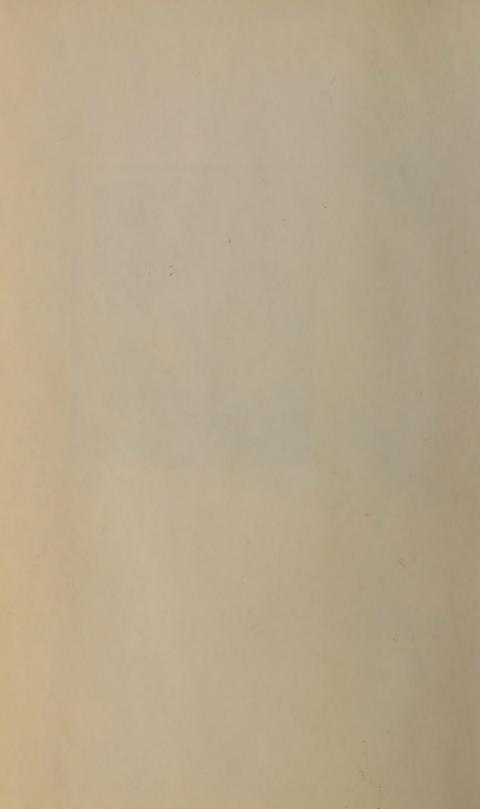


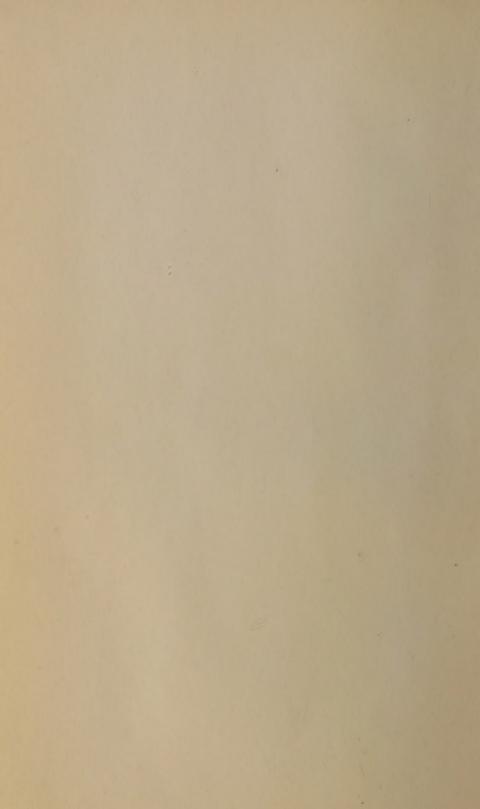


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# THE JOURNAL OF THE ARCHAEOLOGICAL INSTITUTE OF AMERICA



# Archaeological Institute of America

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### A CYLIX IN THE STYLE OF DURIS<sup>1</sup>

### [PLATES I-III]

Some years ago I procured in Naples a cylix in the severe redfigured style which was said to have been found in the region of Capua. It seemed to be intact (Figs. 1 and 2) but after a thorough cleaning with alcohol I found that it was made up of many frag-



FIGURE 1.—CYLIX IN BALTIMORE, BEFORE CLEANING: INTERIOR.

ments, ancient and modern. Modern pieces of coarse red brick clay had been used to complete the vase and on these the scenes had been restored with a red and a black paint which resembled very closely the ancient paint. To make the work more deceptive and to leave no traces of the restoration all the ancient parts with black and red were repainted with the same modern black and

<sup>1</sup> I recognized that the cylix was in the style of Duris some years ago and showed it to Mr. J. D. Beazley who agreed with me. Cf. A. J. A. XXI, 1917, p. 87; Beazley, Attic Red-Figured Vases in American Museums, p. 99; Hoppin, A Handbook of Attic Red-Figured Vases, I, p. 278, No. 47. For literature on Duris cf. Hoppin, op. cit. pp. 208 ff.; J. H. S. XXXIX, 1919, pp. 85 ff.

red. In one or two cases this was incorrectly done, but on the whole the cylix had been so beautifully repainted that at first sight it seemed to be perfectly preserved except where a wooden peg held the perpendicular part of the foot together. The cleaning revealed, however, that nearly all of the ancient drawing on the interior and on one exterior side was preserved and that on the other exterior side, where most of the restoration had been made, enough was left to leave no doubt of the number of figures and their general attitudes except in the case of the standing draped youth holding the oenochoe who was incorrectly restored, as we

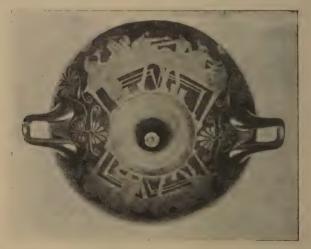


FIGURE 2.—CYLIX IN BALTIMORE, BEFORE CLEANING: EXTERIOR.

shall see. The inscription on the interior had been repainted as  $i \pi a i s \kappa a \lambda i s$ , which also aroused my suspicion. After cleaning, part of the scene on the side less well preserved was seen to be gray instead of red as before cleaning (the gray piece includes the upper part of the couch to the left and what is preserved of the man and the lower part of the lady on the next couch). This is probably due to the fact that the vase was perhaps thrown into the fire in connection with the burial rites and when the cylix was broken, certain pieces of red clay had their color changed to gray through the action of fire, while most of the pieces and even the red on the shoe and table and the leg of the couch on the lower part of this fragment were unaffected. That the vase was broken in some way in antiquity is proved by the fact that the

gray color ends at the joints of the ancient piece (cf. the same thing on a cylix by Duris in Boston, published by Tarbell in A. J. A. IV, 1900, pp. 183 ff.). It is impossible to say how many later breakages there have been.

The cylix is of the usual form of the period and resembles with its beautiful curves from the foot into the sides of the vase many of the signed vases of Duris.<sup>1</sup> The height is 0.12 m. or  $4\frac{3}{4}$  in.; the diameter, 0.32 m. or  $12\frac{1}{2}$  in.<sup>2</sup>

As is almost always the case with Duris's signed cylices,3 his composition is synthetic and the designs on the inside and outside are closely connected. On the interior and exterior the scenes are all similar and taken from the banquet. There are five scenes of a bearded man and woman reclining on a couch with a table in front, beneath which is placed in every case a pair of shoes.4 In the case of the Berlin signed cylix (Arch. Zeit. XLI, 1883, pl. 4)<sup>5</sup> a similar scene occurs on the interior, but not on the exterior. On the British Museum signed cylix (E 49)6 are banquet scenes on the outside only, and on a cylix in the style of Duris in Florence we have a banquet scene on both interior and exterior. In the case of a cylix in the style of Duris in Munich<sup>8</sup> the banquet scene is on the inside only. This subject often occurs on Greek vases, though not with the details or luxuriousness pictured in the symposia of Xenophon and Plato. There is a good detailed discussion of the art-motives of the symposium

<sup>&</sup>lt;sup>1</sup> Some such as Perrot et Chipiez, *Histoire de l'Art*, X, p. 531, fig. 299 are different, but fig. 300 is similar.

<sup>&</sup>lt;sup>2</sup> The vase of Duris published by Tarbell A. J. A. IV, 1900, pp. 183 ff. is  $4\frac{3}{4}$  in. in height, and  $12\frac{1}{4}$  in. in diameter.

<sup>&</sup>lt;sup>3</sup> Tarbell, op. cit. p. 186, says that this is not the case on his later unsigned ones and yet Beazley, loc. cit. classes our vase with the last, the senile phase of Duris.

<sup>&</sup>lt;sup>4</sup> In Furtwängler, Sammlung Somzée, p. 96, pl. XXXVII is a similar unsigned cylix (now in Brussels) with a man and woman reclining on each of two couches on either exterior side. There are tables in front of the couches and a boy with an oenochoe in the middle of both sides. Baskets and cylices hang on the wall, but there are no shoes under the tables and there is a meander and star border on the outside instead of the single line which occurs on our vase. I am inclined to think that this cylix also, though not mentioned by Beazley or Hoppin, is in the style of Duris.

<sup>&</sup>lt;sup>5</sup> Beazley, op. cit. p. 98, note 1 says that the signature is a forgery, but Hoppin includes it among the signed vases (op. cit. I, p. 216).

<sup>&</sup>lt;sup>6</sup> Hoppin, op. cit. I, p. 240.

<sup>&</sup>lt;sup>7</sup> Cf. Jacobsthal, Göttinger Vasen, p. 58.

<sup>8</sup> Furtwängler-Reichhold, Griech. Vasenm. pl. 105.

(συμποσιακά) by Jacobsthal in the Appendix to his Göttinger Vasen (Abhandlungen der königlichen Gesellschaft der Wissenschaften zu Göttingen, phil. hist. Kl. XIV, 1913, pp. 33-76)1 and by Studniczka in his Das Symposion Ptolemaios II. (Abh. Sächs. Ges. XXX. 1914. No. II.) In the interior (Plate I)<sup>2</sup> the upper part of the man's head and the right hand and wrist of the woman and the top of the flute case are missing but easily restored.2 The hand of the woman is restored as it was on the repainted vase and to correspond to the gesture of one of the men on the outside. She is reclining in a half-seated posture with left elbow resting on a double or doubled over cushion<sup>3</sup> decorated with broad and narrow black bands and a tassel at the ends. She is clothed in a linen chiton under which her right breast is indicated and in a himation which comes over her left shoulder and arm and falls down between her body and arm over the edge of the couch. The other end is arranged in broad folds across her lap and legs and falls in three folds over the lower end of the couch (just as in Furtwängler-Reichhold, op. cit. pl. 105). Her right knee is raised considerably and her right foot cut off by the border as often in such figures on vases signed by Duris and in his style; and her left leg is bent back at the knee and cannot be traced further. The position of the legs is almost identical with those of the woman on the inside of the signed vase in Berlin (Hoppin, op. cit. I, p. 217). She holds no vase in her left hand as all four women on the exterior do, or did. She wears a wreath about her hair which is solid black above, but with characteristic Durian relief lines in the black below the wreath. Her eve has the pupil and iris indicated by a dot and circle and her head is turned and inclined downward toward the man at the right. The man is clad only in a himation, which falls over his lap and is brought around his back behind his left shoulder, but not over it, somewhat as in the case of the female figure on the inside of the signed

<sup>&</sup>lt;sup>1</sup> Such symposiac scenes are frequent on vases and Etruscan wall-paintings and are found even on the Arretine vases (not mentioned by Jacobsthal). Cf. Chase, Loeb Collection, pl. IV; Boston Museum, Cat. of Arretine Pottery, pp. 57–59, pls. XII–XIII; Miss Richter, Handbook of Class. Coll. Metropolitan Mus. p. 193.

<sup>&</sup>lt;sup>2</sup> I am indebted for the drawings in Plates I-III to Miss M. Louise Baker of Philadelphia. I have gone over every detail with her and while some changes have been made and one or two things are uncertain, the drawings give an excellent idea of the scenes on the vase itself.

<sup>&</sup>lt;sup>3</sup> Cf. Perrot, op. cit. X, p. 530, fig. 298; A. J. A. XX, 1916, p. 331, fig. 13.

vase in Berlin (Hoppin, op. cit. p. 217). The other end falls across his left arm below the elbow down to the wrist. His breast and shoulders and right arm are nude. He has a beard quite similar to that which is often found on vases of Duris and his hair is done up in a sort of crobylus at the rear. He undoubtedly wore a fillet as the other men on the exterior of the vase do, and his hair and eve have been restored from the male heads preserved on the exterior. He holds in his left hand the double flute, whereas the very similar figure (cf. the pectoral muscles and right arm) on the signed vase in Berlin holds one flute in his left hand and raises the other flute with his right to his mouth. On our vase the right arm also is raised and bent at the elbow, but the right hand is empty and turned back so as nearly to touch the head. This is probably a gesture of conversation (note the open mouth) such as we have in the case of the first bearded figure to the left on one side of the exterior of one of the signed Duris vases in Berlin (Hoppin, op. cit. I, p. 217). It may be a slight variation of the singing gesture. where the right hand is placed on the head as in the case of one of the female figures on the exterior. The man rests his left elbow also on a pillow doubled over above the top of the couch which here as in the other five couches on the exterior has a headpiece consisting of the halves of two double volutes (hardly of the type known as Ionic) with a sort of abacus above.<sup>2</sup> The couch is different from couches on vases of Duris in this respect, but Duris liked variety. It is similar to the couch with volutes on the cylix in Munich in the style of Duris (Furtwängler-Reichhold, op. cit. pl. 105). In front of the couch is a three legged table or  $\tau \rho i \pi o \nu s$ such as we know the Greeks used,3 with a leg at each side of the top and one in the middle of the bottom. The front upper leg. which is the only one visible, cuts into the border so that we cannot tell how it terminated and whether it had clawfeet at the end, as so often was the case. Probably the painter intended the legs to be plain. Otherwise he would have indicated the claws in the case of the bottom leg of the table as is done in the vase in Furtwängler-Reichhold, op. cit. pl. 105 and on the vase

<sup>&</sup>lt;sup>1</sup> The gesture occurs even in the fresco from the Corneto tomb of the triclinium pictured in Martha, L'Art Étrusque, p. 385. See Jacobsthal, op. cit. p. 66.

<sup>&</sup>lt;sup>2</sup> Cf. Miss Ransom, Couches and Beds of the Greeks, Etruscans and Romans, pp. 80 f.; Puchstein, Das Ionische Capitell, p. 56.

<sup>&</sup>lt;sup>3</sup> Blümner, Arch. Zeit. XLII, 1884, pp. 179 ff.; 285; XLIII, 1885, p. 287.

in Berlin already cited. Under the table, as in the four other cases, appear two shoes with turned over tops and long pointed toes such as we see on Ionic and Etruscan monuments1 and which survive today in Greece in the red boots called τσαρούχια. Under the shoes there is an empty exergue as often on vases of Duris. In the background the only indication of the wall of the banquet hall is the picnic-basket which is suspended by two strings tied in a bow. Other strings are indicated on the outside of the basket and three strings hang in a sort of tassel from three parts of the bottom of the basket. Three similar baskets are represented on each exterior side and all are almost identical, though the number of horizontal lines varies in different cases. This kind of basket was called  $\sigma \pi \nu \rho i s$  in ancient times and is still in use in Greece for carrying marketing and all sorts of things (ζεμπίλι). It is even used at excavations for hauling earth to the dump carts and also for storing things.<sup>2</sup> At the extreme left hangs a flute case or συβήνη stitched down the middle so as to have a section for each of the two flutes and a special piece attached to the side for the mouth-piece. A flute case occurs in a similar position in Furtwängler-Reichhold, op. cit. pl. 105 and A. J. A. XX, 1916, p. 331. Above the basket are the letters PAISK, which must be restored as ὁ παῖς καλός and not ἡ παῖς καλός as the Italian restorer had completed it.3 The whole design is surrounded by a pattern consisting of two meander squares in opposite directions separated by "red-cross squares." These meander squares vary and there are at least five cases where the cross becomes an X. It is interesting to see that the painter was not successful in making both ends of the pattern

<sup>&</sup>lt;sup>1</sup> Cf. Pottier, Louvre Album, pl. 98, G 81; Furtwängler-Reichhold, op. cit. Iv p. 96, pl. 21; Antike Denkmäler II, pl. 41; Arch. Zeit. XLI, 1883, pl. 17; Gerhard, Etr. Spiegel, pl. 81, 2; Behn, Die Ficoronische Cista, p. 30. Such shoes occur resting on a support under a table in front of a couch on a "Cyrenaie" cylix representing a symposium in the Musée du Cinquantenaire at Brussels. I cannot find the vase illustrated or mentioned in the publications on Cyrenaic vases.

 $<sup>^2</sup>$  Cf. also Hartwig,  $\it Die\ Gr.\ Meisterschalen,$  pl. XIV and Jacobsthal, op. cit. p. 51.

<sup>&</sup>lt;sup>3</sup> On only four signed vases out of forty (Hoppin, op. cit. I, pp. 254, 266, 269, 274) do we have  $\delta$  παι̂ς καλός. On other signed vases Panaetius, Chaerestratus, Aristagoras, Hermogenes, and Hippodamas occur as καλός names. On the unsigned vases  $\delta$  παι̂ς καλός or simply καλός is frequent (cf. Hoppin, op. cit. I, pp. 276–290; II, pp. 490–492).

<sup>&</sup>lt;sup>4</sup> Cf. Murray, Designs from Greek Vases in the British Museum, pl. IX.

meet, as on the signed vase illustrated in Hoppin, op. cit. I, p. 245 (cf. Murray, op. cit. Figs. 32, 33, 34). He had to curtail part of a cross square (in the middle below the shoes). and to use only a single meander square in one case.1 The pattern is almost identical with that on the cylix in Munich in the style of Duris (cited above) and reminds one of the similar pattern of single meander squares and crosses which was so usual with Duris in his later period (cf. Tarbell, op. cit. p. 187; Hoppin. op. cit. I, pp. 217, 219, 230, 241, 245, 261, etc.). When the interior scene is compared with that on the signed vase in Berlin which has a similar subject, great resemblances appear, some of which I have already pointed out, but the scenes are far from being exact duplicates, and this very fact is characteristic of Duris, to repeat similar motives but with enough variation in details to avoid dry monotony and to present a life-like and interesting painting (cf. for example Arch, Zeit, XLI, 1883, p. 23). So here the meander-star border is different, though similar. The himation on the man on our vase resembles that on the woman on the signed vase. The pillows, couch, and table, and the flutes are similar, but different. In our case the woman's hands are empty, on the Berlin vase one has castanets, the other a cylix. I have already spoken of the difference in the flutes, and I might call attention to the fact that the shoes are turned in the opposite direction, and to the difference in the heads of the women, but to my mind these differences only make it more certain, in view of what we know of Duris's fondess for variety in similar themes, that our vase is also by Duris.

Let us now turn to the exterior scenes. On the best preserved side (Plate II) are six figures and two couches of the same type as on the inside with a three legged table in front of each. This is a subject hardly suited even to the interior of a cylix, but much less so to the exterior. Notice how each foot of the first couch to the left and the top foot of the other couch are not continued to the circular line bounding the scene as on the interior, but a kind of triangular piece is left in the color of the clay to form a straight line to represent the floor on which the legs can stand. The bottom of the lower leg of the couch to the right, which is drawn

<sup>&</sup>lt;sup>1</sup> This is to the left just below the lower end of the couch. The Italian restorer had repainted the next cross above as a meander, thus bringing four meanders together. Cf. Fig. 1. On the fragment in Hoppin, op. cit. p. 261 a "cross square" is omitted entirely between two meanders.

behind the other, is concealed behind one of the shoes under the first table, and the lower leg of the table in front of the couch to the left is not visible at all, thought of perhaps as concealed behind the flute-player's right leg. The upper leg ends behind the right foot of the nude youth as does also the lower leg of the table to the right, which is here drawn, but not in the similar scene on the other exterior side. Under each table is a pair of shoes turned in opposite directions. On the other side the shoes are turned in the same direction. On the first couch to the left are a lady and a man in the usual order which puts the man nearer the head. The ladv is clad in a short-sleeved linen chiton of fine folds which shows the form of the breasts as is usual at this period (cf. Hoppin, op. cit. I, p. 217). She also wears the himation which is brought around her back and over her left shoulder and entirely outside and under her left arm instead of being brought inside the arm above the elbow as in the case of the other female figure on this side and on the inside. She raises her right leg and her chiton shows below the himation, and her bare right foot is exposed beneath the chiton and projects beyond the foot of the couch. She rests her left elbow on a double cushion and in her left hand holds a cylix with off-set lip and places her right on her head which is covered with a hood, as in Hoppin, op. cit. I, p. 217, in front of which her hair hangs down in the characteristic relief lines. In front of the couch toward the lower end and in front of the lower end of the table stands to the right a fairly tall youth with slender head somewhat like the youth on one of the signed vases of Duris in Vienna (Furtwängler-Reichhold, op. cit. pl. 54). He is clad only in a himation with folds which fall quite in the style of Duris. The right shoulder is bare and the drapery shows the rear line of the body and of the right leg. The boy wears a purple fillet over his hair which is done below the fillet as usual on this vase (also a characteristic of Duris) in relief lines, and he is blowing the double flute held delicately in his dainty fingers (no phorbeia). This group is very closely paralleled by the similar scene on the interior of the cylix in Munich in the style of Duris. The flute-player though taller is almost identical with that on our vase in pose, in the arrangement of the himation, in the position of his arms and flute, in his hair, in his fingers, etc. On the Munich cylix there is the same kind of couch with volutes on the head-piece as on our vase, the same kind of

<sup>&</sup>lt;sup>1</sup> For a figure, somewhat similar, cf. Mon. Ined. I, pl. 32.

double meander and star pattern and cushion and shoes, as on the inside of our vase, also the same method of bringing the himation behind the left shoulder without really covering it, the same way of letting the himation fall over the side of the couch near the bottom as on the inside of our vase. The main difference is that on the Munich cylix the reclining figure putting his right hand to his head is male, and on our vase a woman is making this gesture which is here undoubtedly that of a singer, and is a frequent gesture today of yodling Swiss shepherds and of singers in Italy and other southern lands.<sup>1</sup>

In the case of the Munich vase the words οὐ δύναμ' οὐ which help us correct the text in Theognis 695 or 939 are proceeding from the mouth of the man (cf. Ath. Mitt. IX, 1884, pl. I; Baumeister, Denkmäler p. 1984; also Studniczka, op. cit. pp. 124 f. where there is a flute-girl and a reclining figure with similar gesture). The Munich cylix and our cylix probably come from the same hand and are another illustration of Duris's fondness for repeating the same motive but with ever varying details. To come back to our vase, the next figure to the right is a bearded man reclining with his left elbow supported against a cushion, which is visible above the head-piece of the couch below the outstretched right hand of the nude boy. It is thought of probably as concealing the usual tassel end, but in any case the cushion seems to be single here as in the case of the other man on this side of the vase, and in that of one of the men on the other exterior side, the other man there having a double cushion, another instance of

¹ Cf. Furtwängler-Reichhold, op. cit. text to pl. 105, Studniczka, op. cit. p. 125 and Jacobsthal, op. cit. pp. 59, 60 n. 1, 62; cf. also the similar gesture on a vase by Smikros in Brussels, on a red-figured crater in Corneto with banquet scene (Jacobsthal, op. cit. p. 52); Furtwängler-Reichhold, op. cit. pl. 73; on a vase signed by Duris belonging to Theodore Reinach in Paris (Hartwig, op. cit. p. 620 and pl. 67); and on the very small cylix (4.5 cm. high by 10.5 cm. in diameter) in the British Museum which Jacobsthal publishes op. cit. pl. 22, which is probably a Boeotian imitation of an original vase by Duris. The man reclining to the left is playing the double flute while the man to the right with right hand on his head is singing  $\delta$  διά τῆς θυρίδος, the beginning of a song of Praxilla cited by Hephaestion (Frag. 5 Bergk) and dating from the same time as the vase (452 B.C.).

διὰ τῶν θυρίδων καλὸν ἐμβλέποισα
 παρθένε τὰν κεφαλὰν, τὰ δ'ἔνερθε νύμφα.

On the exterior we have  $\phi \alpha \sigma l \nu \dot{\alpha} \lambda \eta \theta \hat{\eta} \tau \alpha \hat{\nu} \tau a$ . Here we have lyric poetry to the accompaniment of the flute, and elegy with the lyre, which is quite different from the literary tradition.

variety of which Duris is so fond. His hair is of the characteristic type with raised relief lines below the purple wreath which he wears, behind and also directly in front of the ear and extending down along the left edge of the beard, the rest of which, however, is smooth. A single incised line separates the smooth black of the hair above the wreath from the black background. The upper part of the face is obliterated, but the single black lineextending across the upper lip to the beard as in the other cases on the vase indicates the mustache. His lips seem to be slightly parted as if he were speaking to the nude standing youth facing: him to whom he stretches out his right arm at full length, supporting it with the long delicate characteristic fingers of his left hand. an awkward but vigorously rendered gesture. He is clad in a himation, which comes across his left shoulder and arm down to the elbow. The lower part of the himation is brought up over his body in a beautiful S shaped curve and falls in characteristic zigzag folds, parallel with the zigzag folds of the other end. Hisright shoulder and right side and breast (indicated by a curved black relief line) are nude. His attention is not at all centred on the singing girl, but on the nude boy who has in his left hand a strainer with a handle which ends in a swan's head and holds out with his right hand a poorly drawn oenochoe (without mouth or handle, but see standing youth on other side). The overlapping of the bearded man's and the boy's right arms brings the two figures closer together than they really ought to be, though the placing of the boy's right foot in front of the upper legof the table in front of the couch, counteracts this and makes it apparent that the perspective is not correctly rendered, and that the man is meant to be extending his arm, not straight to the side, but rather away from himself toward the front beyond the table to the youth, who has many of the characteristics of Greek sculpture of the period about 480. The right leg is advanced and the figure stands in profile to left, but the upper part of his body which is too narrow above the hips, is in full front view and both breasts show completely. They have the characteristics of Duris, especially the little triangle with circle between them at the bottom which Duris often used. The head again is in profile to the left. The lips are somewhat parted. The face has a slight smile. The pupil of the eye consists of a

<sup>&</sup>lt;sup>1</sup> Cf. Furtwängler-Reichhold, op. cit. pl. 84; Hartwig, op. cit. pl. XXXIV; Mon. Ant. IX, pl. 13, and references in A. J. P. XXVIII, 1907, pp. 450 f.

dotted circle (which occurs frequently on vases of Duris) and is not in full front as so often in early Greek art but is pushed toward the inner corner of the left eye. The hair is smooth above the purple fillet but has the characteristic relief lines below. The youth is a typical Duris figure such as occurs on the British Museum signed cylix, where the same principle of isocephalism of which early Greek art was fond is followed and the legs of the standing boy are elongated so as to bring his head on a level with those of the reclining figures. The height of the boys on the two vases is a little more than eight times that of the head, which is about the proportion on one of the signed Vienna cylices. That on the British Museum vase is eight and one-half times. The nude figure on our vase is a little taller than the draped one. The third group of figures consists again of a man and a woman on a couch, but here they are interested in one another as on the inside of the vase. The couch is of the same form as the others except that here the eyes of the volutes are represented in solid black dots. The upper foot again rests on a sort of platform which is indicated by a bit of triangular red which has been left in order to give the couches. though resting on a curved line, the same length of leg. The lower leg of the couch is seen behind the first couch to the left and ends behind one of the shoes. This really makes five planes (second couch, table, head of first couch, table, and nude youth), and with the three baskets (also slightly differentiated by a difference in the number of surrounding black lines) hung up by purple strings tied in a bow-knot, and the two cylices on the wall (such as occur often on vases of Duris) gives a distinct impression of a banquet room and perspective, however crudely rendered. In front of the couch is a table of the form described above, but here the bottom leg is drawn. Underneath are the shoes but turned to the right. The lady is draped in the same sleeved linen chiton as the other ladies with the same characteristic groups of three lines each to represent the folds. She also wears the himation which falls over her left arm above the elbow and inside her lower arm which is bare below the elbow. The himation is also seen over her legs which have about the same position as those of the lady on the inside of the cylix. The right knee is raised and the left leg is bent back from the knee which is drawn as resting on the couch (cf. inside). The transition from the lower body in profile to the upper body in full front is

<sup>&</sup>lt;sup>1</sup> Cf. Hoppin, op. cit. I, p. 241; Studniczka, op. cit. p. 140.

not well rendered but, as we have seen, it is characteristic to have the lower part of the body in profile and the upper part in full front. The left breast is distinctly indicated by a curved black relief line. On her head she wears a hood which is similar to the hood of the other lady except that it has one black relief line where the other has two. (The lady on the inside and the other outside wear wreaths.) The hair has the usual relief lines. Her eve has the circle and dot, and her lips are slightly parted. She rests her left elbow on a double cushion and holds a cylix with offset lip in her left hand as the other lady on this side does though in a slightly different position, and places her right hand on her left shoulder or nearly so. She is looking at the man who is clad only in a himation which is arranged similarly to that of the other man on this side, with the same parallel zigzag folds at the ends; but there are differences as usual on Duris's vases. The folds over his upper left arm are different and both his shoulders and breasts are nude. The arrangement of the himation behind the left shoulder which it does not cover is like that on the male figure of the interior. Only a single cushion appears above the head-piece of the couch, which here has the volutes different with the eyes indicated and a higher member between them and the abacus. The man wears a purple fillet and has the characteristic hair and beard and mustache, and eve with circle and dot. His upright open right hand is stretched out to the left behind the lady's head and has the elongated fingers which we see elsewhere on this vase. His left arm is bent at the elbow and his left hand with the palm down is bent forward toward the lady. Here again we see Duris's fondness for variety in the midst of similarity. for in the case of the similar group on the other side, the gestures are reversed and the man has his right hand on his left shoulder and the lady is probably stretching out her right.

Between the scenes on the two exterior sides, under and on either side of the two handles (the inside of which as well as the space between them is left in the red color of the clay), is a beautiful quadruple palmette and spiral ornament which had been repainted with an extra number of petals. The drawings indicate what is restored. The essential parts remain and show us a beau-

<sup>&</sup>lt;sup>1</sup> This gesture of right hand touching, or nearly touching, left shoulder is seen on the signed cylix belonging to Theodore Reinach (Hartwig, op. cit. pl. 67 = Hoppin, op. cit. I, p. 261), on a stamnos in Munich and on the Boeotian imitation of a Duris vase (Jacobsthal, op. cit. p. 65 and pl. 22).

tiful pattern quite in the style of the quadruple palmette pattern which Duris drew so often on the signed vases of his second period, as Winter has shown. Duris uses this kind of palmette pattern with slight variations exclusively and only he uses it. It occurs on at least seven cylices including the one in Boston published by Tarbell. The other exterior side (Plate III) had been much repaired. The drawing shows in dotted line what is there restored, and in solid black what is on the vase after cleaning. On the couch to the left is again a reclining man and lady. Very little of the female figure is preserved. We see her bare right foot<sup>2</sup> and what may be a bit of the mattress projecting over the foot of the couch.3 The lines of the himation can be seen behind the nude boy both above and below the couch where the drapery hangs over. We see also some lines of the himation in front of the boy under his outstretched right arm and can make out some of the lines of the lady's left knee, so that by analogy with the female figure on the inside, and with one of those on the other exterior side, it is easy to restore the general position of the lady with raised right knee and with left leg bent back at the knee. She undoubtedly held a cylix, of which there are slight traces, in her left hand and her left elbow rested on the two cushions or double cushion, the upper ends of which are still preserved. What the position of the right hand was, we cannot be certain. It has been restored in the drawing as it was restored before the cleaning, but we can prove that the Italian restorer made several mistakes as in giving the wrong number of petals in repainting the quadruple palmette designs under the handles, and, perhaps, we should restore the right hand as resting on the left shoulder, a characteristic gesture occurring twice on this vase. however, was just as likely to vary his gestures as to repeat them. Of the head of the man only the top with the incised line separating his hair from the black background is preserved. We see the line of the right breast with the characteristic triangle, the lines of the himation which goes under the left arm, leaving it as well as the shoulder entirely nude. Here again is a variation, as in every other case on the vase the himation covers the man's arm above the elbow. There is only a single cushion, instead of the more usual two or double cushion, behind the man's back. Enough of

<sup>&</sup>lt;sup>1</sup> Jb. Arch. I. VII, 1892, p. 110, fig. 13; p. 111; p. 116.

<sup>&</sup>lt;sup>2</sup> Cf. Jacobsthal, op. cit. p. 50.

<sup>&</sup>lt;sup>3</sup> Cf. Ransom, op. cit. p. 45.

the cylix with offset lip is preserved in the left hand to make its restoration absolutely certain. The right arm was probably stretched out at full length in the characteristic gesture which we have restored. The couch is similar to the other couches, though above the volutes on the head-piece a kind of echinus is inserted under the abacus. Under the lower foot of the couch a slight bit of the platform is still visible. There is the usual form of table in front of the couch, but the lower leg is not drawn unless the bit of red behind the right foot of the youth is meant to indicate it as concealed behind his leg and coming to view there. In front of the lower end of the table under which are again two shoes stands a nude youth to right with left foot advanced. Part of him is missing above the knees and his shoulders and head and left arm are entirely gone. Most of his right arm is preserved and part of the object in his right hand which is probably a ladle.1 On this side of the vase we have two groups of three persons each, whereas on the other side we have three groups of two persons each, another instance of Duris's love of variety in the midst of symmetry. There are six figures on either side as on two cylices in Munich in the style of Duris (Furtwängler-Reichhold, op. cit. pls. 24 and 105). On the signed vase representing a school scene, and on that with a banquet scene in Berlin (Hoppin, op. cit. I. pp. 215, 217) there are five figures on each side. On one of the signed vases in Vienna (Furtwängler-Reichhold, op. cit. pl. 54) there are seven on each side; and on the other (op. cit. pl. 53), seven on one side and eight on the other. On the signed British Museum cylix with banquet scenes (Hoppin, op. cit. I. p. 241) there are four figures on one side and five on the other (also in Hoppin, op. cit. I, p. 238). In Hoppin, op. cit. I, pp. 222, 230, 233, 237, 242, 249 there are five on each side. So that it is characteristic of Duris sometimes to have the same number on each side, but he is not consistent and varies such symmetry. In Hoppin, op. cit. pp. 227, 246, 250, 257, 262 there are six figures on each side as on our vase.

In the second group to the right except for the loss of the lady's hands the reclining pair is well preserved. The man has both

<sup>&</sup>lt;sup>1</sup> We at first restored this object as a strainer such as the nude youth on the other side holds in his left hand and such as hangs on the oenochoe which the standing draped figure on this side holds. But the piece preserved is too long so that the object must be either a single flute (in which case the other hand should hold a flute and not an oenochoe) or a ladle such as is seen in Furt-wängler-Reichhold, op. cit. pl. 84 and elsewhere.

shoulders and breasts and entire right arm bare but his whole left arm to his wrist is wrapped in the himation which is brought around his back over the edge of his left shoulder (somewhat as in the case of the man on the interior). He rests his left side on a double striped cushion His left hand with elongated fingers and thumb rather awkwardly drawn is empty. His right hand is placed on his left shoulder whereas in the corresponding group on the other exterior side it is the lady who places her right hand on her left shoulder, a characteristic variation of which we have seen Duris is so fond. By analogy with that group I have restored the lady's right hand as extended to correspond with the man's outstretched right hand. The Italian restorer had placed a cylix in her right hand but the cylix should be in the other hand and not in a hand stretched out at such distance. The lady wears the usual sleeved chiton with the folds marked by groups of three fine relief lines. Behind her left shoulder and over her left arm which rests against a double plain cushion and over her lower right leg and left knee can be seen the himation. left hand probably held a cylix, as the line of the forearm certainly seems to warrant. She does not wear a hood on her head as the ladies on the other exterior side, but like the lady on the inside she has a broad wreath in the red color of the clay about her head; whereas the man wears a narrow purple or dark red band about his hair. In front of the table is the maîs olvoxóos of whom are preserved only the two feet, the lower part of the himation, two or three folds of the himation at the back, and the nude right arm with the right hand holding an oenochoe with a strainer hung on its lip just beyond the handle. The Italian restorer had drawn a figure in profile (Fig. 2) but here again (as in the palmette ornament) he made a flagrant mistake. The two lines seen at the back would denote the folds of drapery as falling from the shoulder since the outside line is too high to suggest the gluteal muscles, even if the second line were absent. A sheet draped over a model secured the folds as restored, slightly conventionalized as to regularity. The position of the right hand also suggests this restoration and Duris liked to represent the back of the shoulders. The general position reminds one of the figure to the left on one of the exterior sides of the vase illustrated by Hoppin, op. cit. I, p. 217, and of the figure to the left on the lower exterior side of the vase illustrated by Furtwängler-Reichhold, op. cit. pl. 105. The boy here is draped, whereas

on the other exterior side he is nude, but the other standing figure on this side is nude. The two standing figures here (Plate III) face in the same direction, whereas on the other side they face toward one another, with the nude one to the right, another case of variety in the midst of symmetry. We see it again in the cylices and baskets which hang on the wall. Three baskets slightly differentiated and part of one cylix and another complete cylix are preserved in the drawing. In the centre of the foot of the cylix to the right there is a solid black circle within a ring instead of a small open circle within a larger circle, as on the other side. The black relief lines also vary.

It has seemed worth while in the case of this important vase to go into some detail, as an analysis brings out many interesting features of Greek art in general, and of Greek vases of the severe red-figured style in particular, especially that of variety in the midst of symmetry and similar motives. I hope I have also demonstrated that the cylix is in the style of Duris of which there are two others in Baltimore (Hoppin, op. cit. I. p. 277; Beazley, op. cit. p. 99), the cylix with top-spinning assigned by Hartwig to the "Master with the Spray," being also Durian. Even if some one argument is doubted, the cumulative evidence is conclusive. In the case of Duris there is less doubt than with other vasepainters about an unsigned vase, since we have forty or more signed vases and his style is clearly marked. The resemblance of our cylix in style to the signed vases and to unsigned vases which have been attributed to Duris with general consent is very great. The subject, the meander and star border, the palmette pattern, the shape of the heads, the hair and beard with the relief lines, the anatomical details, the slender arms and sharp elbows. the noses and ears, the eves drawn with circle and dot (cf. J. H. S. XXXIV, 1914, p. 189), the drapery, the recurrence of similar gestures, the general proportions of the figures, especially the elongated standing youths whose small heads are on a level with those of the reclining figures, the love of variety in detail in the midst of symmetrically arranged groups, but above all the resemblance in style to signed vases of Duris, make it almost certain that we have a cylix painted by Duris himself or by one of his best pupils in his second period (hardly senile as Beazley calls it) when he painted his other cylices with banquet scenes and when in the midst of a certain stiffness he exhibited not only care but a greater power of facile execution (Fowler-Wheeler, Greek Archaeology, p. 495). Jacobsthal is inclined to date some of these vases as late as 452, but in view of the lack of true rendering of the anatomy in many cases I am not inclined to date our cylix later than 470. On the other hand I hesitate after the remarks of Hauser (text to Furtwängler-Reichhold, op. cit. II, p. 232) and Jacobsthal (op. cit. p. 63 and passim) to date Duris's second period as early as 480.

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## DYNAMIC SYMMETRY: A CRITICISM

Ι

Though published under university auspices and enlisting for its preparation the interest and seemingly the sympathy of the classical specialists of two of our great American museums, Mr. Hambidge's treatise on dynamic symmetry has thus far elicited very little archaeological comment. Yet his theory, if true, is of fundamental importance for Greek esthetic theory and for our understanding of the relations between mathematics and artistic practice in antiquity. In certain modern circles, among lay theorists and practical designers. Mr. Hambidge is said to have succeeded in gaining a considerable following for his methods: but it is not as a working formula for artistic production today, so much as a brilliant and novel explanation of the structural formulae of sixth and fifth century Greek vases that Mr. Hambidge's treatise commands the attention of classical archaeologists, who owe its author their gratitude for turning his labor and their attention so searchingly to the fundamentals and minutiae of the formal structure of many of the most beautiful shapes of ancient pottery.

Those who had not the fortune of initiation through personal instruction had for long heard distantly of Mr. Hambidge's process of "Dynamic Symmetry" as of some great thaumaturgy through which the theory of ancient design had been fundamentally affected. When at last Mr. Hambidge published his book on structural design, based on accurate and very detailed measurements of Greek vases in the Boston, New York, and New Haven museums, his expectant public among classical archaeologists felt, with disappointment, that the subject had not been made as accessible as had been hoped. Very remarkable properties were apparently inherent in ancient vases; but there was no simple and direct statement of what dynamic symmetry was, or how it was to be detected, or what artistic properties it imparted. The shadow of a geometric mysticism seemed to obscure the issues. Before

<sup>&</sup>lt;sup>1</sup> Jay Hambidge, Dynamic Symmetry: the Greek Vase. Yale University Press. 1920.

one can appreciate, one must understand; but the understanding of dynamic symmetry had been left extremely difficult.

From Mr. Hambidge's treatise it is apparent that dynamic symmetry has to do with the relation of surface areas in a design. "Static symmetry" (which is treated as its antithesis) depends upon simple commensurability of lengths, of linear measurements. But dynamic symmetry, apparently, is not mere commensurability of area. An ellipse and a circle having twice the area of the ellipse are apparently not an instance of dynamic symmetry. Mr. Hambidge confines his instances to rectangles. The computation of areas of curvilinear outline would be distressingly difficult. Accordingly, in the case of Greek vases, it is not the area of the vases which is computed. The actual area of the vase surfaces, I may say, is nowhere computed, and is a matter of indifference. For the curvilinear area of the vase a simple rectangle is substituted. This is the containing rectangle, of which the sides are parallel to the vertical axis and the base-line of the vase. It is, as it were, the smallest rectangular frame into which the whole vase will fit. To this rectangle the analysis for dynamic symmetry is applied. Not its size, but its shape, is important. If this rectangle can be split up into rectangles of similar and related shapes, and if these smaller rectangles can be used to determine recognizable elements of the vase, the occurrence of dynamic symmetry is held to be established.

In a sense, the first condition can always be fulfilled geometrically, since within any rectangle an infinite number of rectangles of similar and related shapes can be constructed. But dynamic symmetry apparently requires not merely that similar rectangles shall be discoverable, but that the whole rectangle may be completely subdivided into squares and rectangles similar to the original rectangle or of closely related shape. This process of subdivision is the chief geometrical element in dynamic analysis. Such analysis of a rectangle is usually accomplished (1) by division into halves, thirds, etc., or (2) by laying off the shorter side on the longer side (so as to form a square) and then treating the remainder of the original rectangle as a new rectangle subject to similar analysis. The completed process will thus show a dis-integration of the original rectangle into squares and rectangles. These rectangles will be similar to the original rectangle only under certain conditions. Rectangles fulfilling these conditions are the only ones used for dynamic symmetry. Mathematically

it is perfectly easy to formulate these conditions and discover what rectangles will satisfy them.<sup>1</sup>

<sup>1</sup> As this is nowhere clearly performed in Mr. Hambidge's book, a brief notice may be of service:

(1) When the short side is laid off on the long side of a rectangle so as to form a square, the requirement that the remainder of the rectangle shall be similar to the original rectangle may be stated thus,

$$x-1=\frac{1}{x}$$

where x is the long side, and the short side is 1. This equation will be satisfied if  $x = \frac{\sqrt{5}+1}{2}$  (i.e. very nearly 1.618). A rectangle with its sides in the ratio of 1.618 to 1 will, therefore, satisfy the condition. This particular 1.618 shape

of 1.618 to 1 will, therefore, satisfy the condition. This particular 1.618 shape is called by Mr. Hambidge the "Whirling Square Rectangle" and is, next to the square, the most frequent form in dynamic analysis.

(2) Since  $\frac{\sqrt{x}}{x} = \frac{1}{\sqrt{x}}$ , it follows that rectangles of which the sides are to each

other as the square root of an integer is to 1, will have a special property of subdivision into shapes similar to the whole. Substituting the value 2 for x, it follows that when a "Root-Two Rectangle" (i.e. one of which the longer side is to the shorter as  $\sqrt{2}$  is to 1) is cut into 2 parts (sc. at the mid point of the longer side) each part will be a "Root-Two Rectangle"; similarly (substituting 3 for x) when a "Root-Three Rectangle" (i.e. with sides as  $\sqrt{3}$  to 1) is cut into 3 parts, each part will be a "Root-Three Rectangle" (and so on for higher values of x). Because of this property of subdivision, the "Root-Rectangles" are peculiarly suitable for "dynamic" analysis.

(3) The "Root-Five Rectangle" (i.e. with sides as  $\sqrt{5}$  to 1) is related to the "Whirling-Square Rectangle." Since  $\frac{\sqrt{5}-1}{2}$  is the reciprocal of  $\frac{\sqrt{5}+1}{2}$  (by equation 1) it may be simply stated that a "Root-Five Rectangle" is made up of a square plus two "Whirling-Square Rectangles," because  $1+2\left(\frac{\sqrt{5}-1}{2}\right)=\sqrt{5}$ .

The geometric analysis of "Dynamic Symmetry" is therefore based on these three equations:

(1) 
$$x-1=\frac{1}{x}$$
 when  $x=\frac{\sqrt{5}+1}{2}$  ("Whirling-Square Rectangle").

(2) 
$$\frac{\sqrt{x}}{x} = \frac{1}{\sqrt{x}}$$
 ("Root Rectangles").

(3) 
$$\sqrt{5} = \frac{\sqrt{5}-1}{2} + \frac{\sqrt{5}-1}{2} + 1$$
 (analysis of "Root-Five Rectangle" into

square and "Whirling-Square Rectangles").

The remarkable subdivisibility of the rectangles used in "Dynamic Symmetry" is thus due to certain simple inherent mathematical properties of the particular rectangles selected. It is not due to the potter nor to the construction of the vase.

Practically, there are only five forms of rectangles used, viz., those with the following ratios between their sides:

- (1) 1:1 (Square).
- (2)  $\sqrt{2}$ : 1 ("Root Two Rectangle").
- (3)  $\sqrt{3}$ : 1 ("Root Three Rectangle").
- (4)  $\sqrt{5}$ : 1 ("Root Five Rectangle").
- (5) 1.618:1 ("Whirling Square Rectangle").

This does not imply that all Greek vases were made within only five bounding shapes, but rather that all Greek vases are contained in rectangles which can be cut up into parts every one of which can be classed as one of these five shapes. Even so qualified, this assertion is sufficiently startling; but Mr. Hambidge shows in his book how true it is.

Now it is perfectly obvious that no merit or ulterior motive or artistic subtlety can be ascribed to a vase just because its containing rectangle can be so subdivided. God, "the eternal geometer," and not the potter, must here have the credit. But if the simplest and most obvious divisions of the containing rectangle frame the various distinct elements of the vase, so that there is a coincidence between the geometrical and the ceramic construction, then it is hard to believe that this occurs by chance; we credit the potter with the intention.

When we consider this coincidence of rectangles with the elements of the vase, we discover that, after all, it is not really as much a question of areas as we might have supposed. The geometry is all in rectangular areas; but the coincidence of these areas with the vase is a matter largely of points on lines. Thus a certain area will establish the width of the lip; but it is not properly the area of the lip which is so determined, it is its linear horizontal extension. Actually, it is mainly the linear measurements along horizontal and vertical axes which are determined by this geometry of rectangular areas.

A glimpse of Mr. Hambidge at work will make this clear. In Figure 1<sup>1</sup> the whole rectangle is divided vertically into three rectangles standing side by side. The middle one of the three (CQD) touches the ends of the narrowest part of the bowl. On the vase there is no question of area: the least width of the bowl is one-third the extreme width of the vase,—a purely linear (or "static") measurement. Next, either of the end rectangles is subdivided

<sup>&</sup>lt;sup>1</sup> Op. cit. p. 105, fig. 1.

horizontally into three (according to a perfectly legitimate formula), and the narrow central rectangle so formed is again divided into three (again perfectly legitimately) so as to produce two squares and between them a rectangle similar to the great rectangle of which it occupies the centre. In a very spectacular way, a vertical dropped from the centre of one of these squares

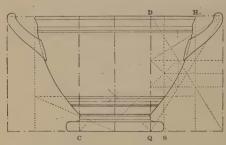


FIGURE 1.—SCYPHUS ANALYSED BY DYNAMIC SYMMETRY.

just strikes the extreme point of projection of the base of the scyphus (S) and a prolongation of one side of the other square just strikes the extreme point of projection of the lip of the scyphus (H). My only aim at present is to make it clear that the areas of these squares

find no echo in the areas of lip or base, but that the geometry of rectangular areas merely fixes the end *points* of these parts of the base. It determines *linear* measurements.

Such a scyphus, then, though composed with "dynamic symmetry," displays to the eye no commensurable areas. We cannot say simply that dynamic symmetry is the coördination of areas in the same sense that "static symmetry" (ordinary linear proportion) is the coördination of lengths. This clearly would not be true.

Rather it would seem that dynamic symmetry is a method for establishing linear measurements according to ratios which would not otherwise be directly intelligible. In the scyphus illustrated above, if the width of the narrowest part of the bowl be called 1, the width of the base would be 1.382 and the width of the lip would be 2.236, while the height of the scyphus would be 1.618 and its extreme width from handle to handle would be 3. Only in this last figure would the uninitiated detect any coherence or rational intention.

In the cantharus¹ shown in Figure 2, in Mr. Hambidge's opinion "one of the finest of Greek cups," the containing area is divided into squares and into rectangles of the same shape as those in our previous figure. The width of the stem, the height of the

<sup>1</sup> Op. cit. p. 68, fig. 8.

bowl, the length of the moulded base-line for the painted figures, are all fixed by these squares and rectangles; but no discrete element of the cup coincides with any of these areas. On the cup (Fig. 3)¹ there are no squares or rectangles to be seen. The eye cannot help dwelling on the beautifully running contours; but these contours run through and across

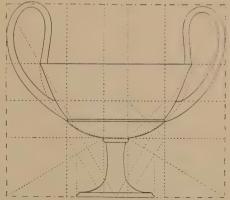


Figure 2.—Cantharus Analysed by Dynamic Symmetry.

the rectangular geometry, and only in the instance of the baseline and the top line of the bowl is there any agreement between outline of vase and outline of rectangles. Even this agreement is highly theoretical, since there are no straight lines in the cantharus at all. The straight edge of the lip is really the curve of a full circle and looks curved from almost every point of view. From the one point of view in which it appears as a straight line (when the cantharus is held vertically and with the rim at the level of the eye) the base-line will look curved; while if the baseline looks straight, the rim will look curved. The geometrical



FIGURE 3.—RED-FIGURED CANTHARUS.

analysis of the figure is based on an orthogonal projection of the vase upon a single vertical plane. Like an architect's elevation of a façade, it is true, but unnatural. If it is thought that this is a quibble over minutiae, the hastiest measurement performed on the photograph of this vase will convince one that the consideration

<sup>&</sup>lt;sup>1</sup> Op. cit., pl. facing p. 68.

is important, since the vase in the photograph will not measure up to the ratios in the diagram, even approximately. The actual vase has to be measured with caliper and ruler for true diameters and heights and widths, before the ratios will work out.

All this serves to indicate that a vase composed in dynamic symmetry will not reveal commensurable areas to the spectator nor even provide him with data from which such area relations can be readily inferred.

In our contemplation of a vase we can scarcely be expected to correlate rectangular air-spaces with others which overrun the edges of the vase, since a fundamental requirement of esthetic contemplation is the isolation of the artistic object from its accidental surroundings. The boundary lines of a piece of sculpture are much more truly barriers the more we concentrate our attention upon artistic qualities. It is a perverse requirement that we should treat the contours of a beautiful vase as practically nonexistent in order to overlap them with imaginary rectangles. We can do it on paper; but in the presence of an actual and material vase, we are conscious that the region where surrounding air ends and vase begins is as crucial as the imaginary plane in a playhouse where audience ceases and stage commences.

Moreover, many of the dimensions are determined by much more elaborate geometrical constructions than the mere subdivision of the containing rectangle into subsidiary ones. Diagonals, intersecting diagonals, and verticals or horizontals drawn from such intersections, play a very important part. "It seems to have been recognized early that diagonals were the most important lines in the determination of both direct and indirect proportions." In the diagram of the cantharus (Fig. 2) a line from either upper corner of the containing rectangle drawn to the mid-point of the base cuts across the ends of the rim of the bowl and thus fixes its length. A vertical dropped from the intersection of two diagonals of related rectangles fixes the width of the base. Could any Greek, holding up this cantharus, with its fine play of rounded shapes and contours, mentally make these constructions of rectangles which lie partly on the vase and partly in the empty air, so as to feel the cogency and the rightness of these lengths of rim and base, as determined by such intersections? Clearly that is not the intention. Rather we must

<sup>&</sup>lt;sup>1</sup> Op. cit. p. 50.

imagine that all this geometrical manipulation is a guide not for the spectator, but for the potter; and perhaps because of it, some quality of rightness or beauty or relevance accrues to the vase, so that its results are somehow felt, though the geometric means are not understood. This seems to be Mr. Hambidge's contention. To the employment of dynamic symmetry he attributes "the quality of inevitableness." He admits (p. 103) that the "key-plan" of a "well-trained designer who understands his symmetry . . . will be unintelligible to any inferior in symmetry knowledge to himself"; and suggests (*ibid*.) that "dynamic symmetry produces in a design the correlation of part to whole observable in either animal or vegetable growth. It is a satisfying harmony of functioning parts which suggests a thing alive or a thing which has the possibility of life." "Beauty, perhaps, may be a matter of functional coördination."

Dynamic symmetry depends, then, on the area subdivisions of the containing rectangle, but is not a method for fixing areas. It determines certain crucial points in the design, but apparently leaves the potter free to choose his outlines between these points and so make his areas what he will. The dynamic rectangles will be unaffected by his choice of contours, since these rectangles are part empty air and part orthogonal projection of vase upon a plane surface. We had always imagined that the curving outlines of ancient Greek vases were their supreme artistic quality and the source of our delight in them. For Mr. Hambidge these outlines are seemingly irrelevant. As far as any statement in his book goes, I can see no ground for holding that any vase constructed on points coincident with the intersections which occur in the geometry of Figure 2 is a whit less beautiful than this cantharus. Yet many designs which would satisfy the geometric analysis would be extremely ugly in outline.1

¹ On pp. 126 f. Mr. Hambidge hints at a "method of relating curves to the straight line and area proportion." He gives as an instance a deinos ("a static example") and shows how the curve runs tangent to the diagonals of certain areas. But as these areas are all composed of uniform squares, the instance is exceptional. Mr. Hambidge says further: "Hardly a vase, among the hundreds so far examined, fails to disclose this method of relating curve to angle, area, and line. The constructions necessary to show this have been kept out purposely in other examples to avoid confusion." We can only regret that no diagrams illustrative of this method of relating curves were included. Rectangles can certainly be drawn so that their diagonals shall lie tangent to the

Dynamic symmetry must accordingly be at most only a contributory influence and not a sole and sufficient cause for beauty in a design. As always, there are here no mathematical formulae which can guarantee to a craftsman inevitably his artistic success. But if that is the case, what (in less vague and general phrases than those which we have quoted) does the use of dynamic symmetry really contribute to a design?

To answer this question we must watch the process of vase analysis a little more closely.

### П

We have seen that the shape (not the size) of the containing rectangle is the starting-point for further analysis. It is clear that (quite apart from size) the shape of a rectangle depends upon the relative lengths of the longer and shorter sides. The ratio of length to width is a sort of index of the shape. To determine this index we may measure the length of the sides (by any scale) and divide one measurement by the other. The resulting numerical value will be the same for all rectangles of similar shape, no matter what their size or what scale of measurement we have used. "The first step is the approximate determination of the containing rectangle. This is done arithmetically from direct measurement."

Since very few Greek vases have a width or height more than three times their other dimension, the index of their shape will nearly always be a number between 0 and 3. Arithmetically, the index is carried out by Mr. Hambidge to three places of decimals to insure accurate distinction. One would expect to find all imaginable values between 0 and 3. In Mr. Hambidge's book one learns that certain combinations of figures are favorites and tend to recur frequently. Thus 1.236, 1.382, and 1.854 occur in many instances. Why 1.236 each time, and not 1.234 or 1.239? It is only fair to say that 1.236 is only an approxima-

contour curve of any vase; but it is not immediately apparent that the contour can be constructed by means of diagonals to the rectangles actually used in the dynamic analysis of the figures of Mr. Hambidge's book. The consideration seems so important for the whole theory of dynamic symmetry that we may confidently expect further and more explicit details from Mr. Hambidge and his collaborators.

<sup>&</sup>lt;sup>1</sup> Op. cit. p. 102.

tion: 1.236 yields dynamic results, whereas 1.234 and 1.239 do not. Therefore in the "approximate determination of the containing rectangle," any index falling close to 1.236 may be classed as an instance of that particular number. I do not know just how great a margin of error is allowable. Mr. Hambidge tells us that he "has found that the small errors found in Greek pottery, except in few cases, are practically negligible," and that "it is really better to make the small corrections necessary to true up an example" (p. 68); and again that "the percentage of error is much smaller in the bronzes than in the pottery" (p. 76), so that in the clay vases, from which most of the examples are derived, some deviation from the exact three-place decimal of the correct index is always to be expected.

To advance from this stage of the analysis, the student must know the kind and character of the rectangle revealed by this numerical index. A peculiar family of rectangles lurks in such indices as .618, 1.236, 1.382, 1.618, 1.809. Another family includes .5858, .7071, 1.3535, 1.4142. Clearly this is a matter of familiarization with certain effective numbers, and requires a certain amount of practice or study of Mr. Hambidge's geometrical manipulations.

Granted that the index is one of these effective numbers, the next step is the disintegration of the rectangle into component squares and rectangles which (though of varying sizes) will all have the same index, or an index belonging to the same family. Thus, in Figure 1, all the subdivisions are either squares or rectangles, of which the index is .618 (i.e. one-third of the index of the containing rectangle, to which it is, therefore, closely related). In Figure 2, all the subdivisions are squares, or .618, or .382 rectangles, which are all related to one another and to 1.118, the index of the containing rectangle.

The object of this manipulation is, as we have seen, to fix points which shall coincide with important end-points of the elements of the vase. Thus in Figure 2, the end-points of the rim, the base, the ring at the top of the stem, and the moulded ground-line for the painted figures, are so determined.

There is no rule or law which demands that corresponding points or measurements in vases of a similar shape or class shall be fixed by the same specific subdivisions of the rectangle. Any point may be fixed in any way, provided that the rectangles are always constructed so as to be similar or related, and that no intersections shall be used unless they be produced by diagonals of such rectangles. If this condition is fulfilled, the intersection of any two available diagonals may be used to fix any point on the same horizontal or vertical axis. Sometimes it is the extreme projection of a base moulding or lip moulding, sometimes it is the inner edge of these mouldings, sometimes it is the imaginary projection of the contour of the bowl across base or lip, which is so determined. In consequence, it is impossible to give a clear statement of the artistic advantage which such a haphazard procedure might be expected to impart to a vase. We must be content with the vague phrases which Mr. Hambidge gives us and which we have quoted.

In defence of Mr. Hambidge's method it should be urged that, after all, it is noteworthy that (1) Greek vases are, by actual measurement, contained within just these rectangles which possess such conspicuous properties of subdivision rather than in other rectangles without these properties, and (2) there are so many coincidences between the actual vase and a geometry with such restricted rules of play. These two arguments are vital, and deserve attention and discussion.

Is it not significant that, when so many vases have been so accurately measured, there should be such a persistent conspiracy in favor of these peculiar rectangles? How is it that, allowing for a margin of error, the indices always lie so close to one of these effective numbers?

If the method of arithmetical analysis is closely studied, it will transpire that the crowd of these effective numbers is rather larger than one would suppose. Any simple multiple or submultiple of an effective number is an effective number; any effective number added to unity or to twice unity or to half unity, or subtracted from unity, is an effective number. In determining the index, if the length of the shorter side is divided by the length of the longer side, a fraction between 1 and 0 must necessarily result; while if the division is performed the other way round (longer side by shorter side) a number greater than 1 (and probably less than 3) will result. Consequently every index above unity has a corresponding index below unity (its reciprocal) and the ranks of effective numbers are thus doubled. The following is an incomplete list of effective numbers between 1 and 3, occurring in the vase analyses in Dynamic Symmetry. To each one of these there is a corresponding reciprocal lying between 1 and 0:

1.0225	1.2071	1.528	. 2.000	2.528
1.0356	1.236	1.5858	2,045	2.618
1.045	1.2764	1.618	2.118	2.7071
1.118	1.2929	1.691	2.1213	2.764
1.1382	1.309	1.7071	2.1382	2.854
1.146	1.3455	1.7236	2.236	2.8944
1.1708	1.3535	1.764	2.309	2.944
1.191	1.382	1.7888	2.3535	
	1.4142	1.809	2.382	
*	1.4472	1.854 .	2.4142	
	1.472	1.8944	2.4714	
		1.9045	2.472	

If necessity arose, other combinations could be made and interpolated in the series; but these fifty are all that were actually employed for the analysis of nearly one hundred different vases, all of which display more or less clearly the presence of dynamic symmetry in their design.

If we examine the above table, we shall find that there are no intervals or gaps as great as .1, and that nearly one half the intervals are less than .03 and one fourth are less than .02 intervals represent very small differences in the linear measurements of an ancient vase of ordinary size. If a hydria about 10 inches high yielded an index of 1.125 on first measurement, this could be classed as an instance of 1.1382 with a deviation of only one twentieth of an inch in the measurement of its height and width; or it could be considered to be an instance of 1.118 with a deviation of barely half as much. As we can scarcely hold the potters accountable to the twentieth part of an inch, it is abundantly clear that there is no difficulty in classifying any vase under one of the effective numbers in the table. The most awkward situation which could arise would be an index of 2.1871 (which falls midway in the largest gap in the table); yet a lecythus  $8\frac{3}{4}$  inches high, which yielded this index, would only differ from a 2.236 or a 2.1382 lecythus by one sixteenth of an inch in its height and width; and this, be it remembered, is the most unfavorable instance that can readily be imagined.

Yet, if the identification of the containing rectangles of actual Greek vases with the rectangular shapes of which the indices appear in the above table is to a considerable extent facile and arbitrary, how does it come that the "dynamic" subdivisions of these rectangular shapes coincide with so many salient points of the vases? If the potter did not intend this particular rectangle, why does

the vase agree so well with the geometry of dynamic symmetry based on this rectangle?

It is only just to point out that part of this dynamic geometry is merely an elaborate method for cutting lines into halves, thirds, and quarters. A few extreme instances of this somewhat misleading practice may here be considered.

In Figure 4<sup>1</sup> the ratio of total height to total width is 1.472. The containing rectangle is divided by constructing a .618 rectangle at

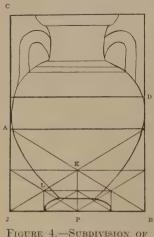


FIGURE 4.—SUBDIVISION OF AMPHORA.

top and bottom (CD and AB in the figure). By means of intersecting diagonals, the lower of these .618 rectangles has other .618 rectangles cut out of it (viz., JK, LP) and by these the width of the base and the foot of the bowl is fixed. A moment's reflection will show that the particular shape of these rectangles is irrelevant and that what has taken place is a dichotomy of the total width of the vase into halves and quarters. The width of the base is one half, the width of the foot of the bowl is one fourth the total width.

In Figure 5<sup>2</sup> the ratio of maximum width to height is 1.809. On AD,

which is one half the height, a .618 rectangle is constructed and divided into a square (DE) and a smaller rectangle (EB) which will also be .618 in shape. The intersection of the diagonals of the square "fixes the width of the bowl." The inner vertical side of the square determines the width of the base. "The points GH show that the meander band at the top of the picture is related to the

foot."

Since DE is a square on half the height, this geometric construction merely goes to show that the maximum width of the scyphus is equivalent

<sup>&</sup>lt;sup>2</sup> Op. cit. p. 109, fig. 10.

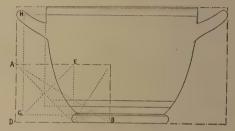


FIGURE 5.—CONSTRUCTION OF SCYPHUS.

<sup>&</sup>lt;sup>1</sup> Op. cit. p. 84, fig. 11.

to width of base plus height of vase, and the width of the bowl is equivalent to width of base plus half the height of vase,—which looks like a convenient potter's formula, but need not be concerned with areas or dynamic symmetry.

As for G and H, since they lie on lines bisecting the corner angles of the rectangle, there is here only an elaborate geometric periphrasis for the observation that the base ring and the top meander-band are of the same height.

It may be readily imagined that such manipulation may become much more involved and that a simple result may be reached by geometric ritual so elaborate that a perfectly honest self-deception on the part of the analyzing draughtsman may ensue. In Mr. Hambidge's book there are enough instances of such geometrical periphrasis to warrant a charge of deliberate obscurantism, were it not apparent that these instances have arisen out of uncritical enthusiasm for geometric analysis.

Yet, when such bisections and trisections of lines by unnecessarily complicated "root-rectangles" have been omitted, there remains a very considerable apparatus of more relevant analysis by proportional subdivision into similar rectangles (which is the earmark of dynamic symmetry). Unless the potters employed similar geometric methods, how is it possible to account for the really extraordinary number of instances where the chief elements of the vase coincide with the divisions of this analysis?

It has already been pointed out that there is no normal and standard system of analysis. Within certain limits and according to certain rules, there is very great latitude. Any method of

drawing similar rectangles and constructing diagonals is permissible. What is applicable in one design may be irrelevant in another. There is no explicit or tacit reason why such and such a combination of diagonals should fix such and such a point on the vase. If it does, that is enough: there has been dynamic symmetry.

In Figure 6, a 1.236 (overall) rectangle has been sub-

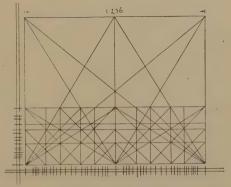


Figure 6.—Subdivision of Rectangle by
Dynamic Symmetry.

divided into two .618 rectangles. I have indicated the most important constructions which are admissible in the dynamic analysis of this shape, and have projected the consequent intersections horizontally and vertically upon a base line and a vertical axis. If any important element of a 1.236 vase (such as the extremity of foot, throat, lip, or the junction of foot and bowl or the level of any decorative band) agrees with any of these subdivisions, the presence of dynamic symmetry is thereby established. Other intermediate positions can be interpolated; but these are the major divisions to which, if possible, the vase analysis should be confined.

### III

Shall we say that, with such a system, any vase ancient or modern could be forced into the framework of dynamic symmetry? It is tempting to answer in the affirmative: but I think that the careful student will decide that such an answer is not justified. Even if we were to eliminate 90 per cent of the analvses in Mr. Hambidge's book as mere adroit manipulation, combined with a mystifying conversion of very simple linear ratios into a guise of "root-rectangles." we should be left with an irreducible minimum of still unexplained coincidences. This minimum, however, is not nearly so great as the casual reader would be led to imagine. Many of the irrational ratios and "rootrectangles" are wholly gratuitous assumptions, and their yield of mysterious inner ratios depends upon the very unabstruse geometrical principle that similar rectangles have similar properties and that root-rectangles persistently yield other rootrectangles when they are properly subdivided.

The following is a crucial instance. On the reader's judgment of the issue here involved will hang his whole faith in, or distrust for, dynamic symmetry.

The lecythus<sup>1</sup> in Figure 7 is analyzed by Mr. Hambidge as follows: "The vase shape is two squares, AB and BC in the drawing. AD, the height of the bowl, is a root-two rectangle. The area CD is composed of the square DS and the root-two rectangle SN. A side of a square, ES, produced from E to J, determines the root-two rectangle JS and fixes the juncture of the neck with the body. A diagonal to the whole cuts a side of a

<sup>&</sup>lt;sup>1</sup> The vase-outline is only roughly sketched in. The comparisons should be made mathematically.

square at G to fix the proportion of the lip. It also intersects the end of a root-two rectangle at L to determine the width of the foot at its juncture with the bowl. The line VI is the centre of the root-two rectangle AD. This is the line on which the painted figures stand. O is the intersection of a diagonal of the whole with the diagonal to the two squares AP. The point U is the intersection of the diagonal to two squares with the diagonal to the root-two rectangle NS. The points H and W are fixed by a line from C to I.''<sup>2</sup>

The geometrically-minded will readily perceive that the various measurements are nearly all connected with  $\sqrt{2}$  (=1.4142).

If the potter were not conversant with  $\sqrt{2}$  and rectangles of which the sides were in this ratio, how did these measurements ever get into his work?

Let us suppose that the potter, knowing nothing of such rectangles, armed himself with a wand, stick, or rule, on which he had marked off 16 equal parts, as the Greeks divided their foot. He would then proceed to shape the bowl of his lecythus, making it as high as his measure, as wide

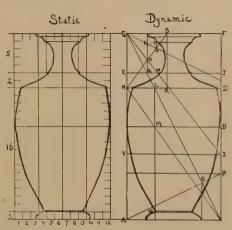


Figure 7.—Lecythus Analysed by Static and Dynamic Symmetry.

as 12 of its 16 parts at its greatest width, but only as wide as 5 parts at bottom. To this bowl he would add a base one part high, a throat 2 parts high, contracting to a width of 4 parts, and set on this a neck (with a moulded lip) 5 parts high, the lip being 7 parts wide. This is all pure "static symmetry," done with a measured rule, without related areas, or  $\sqrt{2}$ , or rootrectangles. Yet, practically speaking, this lecythus would be indistinguishable from that constructed dynamically (cf. Fig. 7), and if it were drawn on paper and subjected to the same analysis of squares and diagonals, all the geometry would be the same. To be sure, there would be no  $\sqrt{2}$  rectangles, and the points fixed by the geometry would be shifted a little; but the max-

<sup>&</sup>lt;sup>2</sup> Op. cit. pp. 125 f.

imum displacement would equal only .0025 of the width of the vase,—which would be a maximum shift of  $\frac{1}{100}$  of an inch for eight inches of height. The following table will show how undetectably minute are these differences between Mr. Hambidge's dynamic vase and the suggested static one:

	Dynamic	Static	Difference
Total height of vase	2.	2.	.0000
Extreme width of vase		1.	.0000
Height of bowl with base	1.4142	1.4167	.0025
Height of throat	.1716	. 1666	.0050
Height of neck with lip	.4142	.4167	.0025
Width of lip		. 5833	.0025
Width of foot of bowl	.4142	.4167	.0025
Width of base	.6?	.6 ?	?

In the above lecythus there is, therefore, very fair pretext for saying that the root-rectangles are accidental intrusions and that the ancient potter need not have had any understanding of "dynamic" symmetry.<sup>1</sup>

In this connection it should be noted that many of the most frequent and important "effective numbers" happen to fall very close to certain simple "static" ratios:

2.236 $(\sqrt{5})$ is scarcely distinguishable from	
2.00 $(\sqrt{4})$ is identical with	2. =8:4=2:1
1.732 ( $\sqrt{3}$ ) is scarcely distinguishable from	1.75 = 7:4
1.618 (the redoubtable "whirling square" ratio) and	
.618 (its reciprocal) closely approximate	1.6 =8:5
	.625 = 5:8
1.309 (a frequent ratio of the .618 family) agrees very	
noonly with	1 33 -4.3

Here more than anywhere else lies the key to Mr. Hambidge's ingenious magic.

It is particularly to be emphasized that a ratio approximating 5:8 has in all ages been a recurring favorite in artistic composition and artistic design. It is the famous "divine section," or "Phi proportion" about which so many more or less scientifically reputable studies and monographs have been written. Some-

 $^1$  So, in Figure 2, by the draughtsman's own geometry the bowl must be almost precisely twice as wide as it is high, the stem (without the little moulded base)  $^3$  the height of the bowl and its spread at the bottom equal to the height of the bowl. The whole cantharus can be constructed "statically" on a measure divided into 8 parts.

where in the neighborhood of that ratio, man has an inveterate tendency to localize his sense for beauty of proportions. For the old potter, working with a simple rule, that ratio was a natural one to employ. Continued bisection of his rule would give him 8 parts or 16 parts with which to lay out and measure. It was only to be expected that he should often avail himself of that harmonious division into a little more and a little less than half which  $\frac{5}{8}$  or  $\frac{10}{16}$  would give him. Wherever he used this ratio, the dynamic analyst will be able to discover "whirling squares," since  $\frac{5}{8}$  is a remarkably close approximation to the division into extreme and mean proportion from which the "whirling square" rectangle derives its peculiar properties of subdivision.

For example, a common potter's formula for the scyphus would seem to have been "lower diameter plus projection of bowl equals total height." In practice, the potter, having set a measure for his height, divided this into two parts, and used the smaller part for the lower radius and the larger part for the upper radius of the scyphus (cf. Fig 5). If (as he frequently did) he divided his original measure into  $\frac{5}{8}$  and  $\frac{3}{8}$ , the scyphus area will inevitably analyze into "whirling square" rectangles. Did the potter choose his formula in order to make areas which, in orthogonal projection on a plane, would reveal such .618 rectangles lying partly on and partly off the vase; or are these rectangles merely a geometric periphrasis for a few simple linear proportions which helped the potter to a satisfactory scyphus shape? Is the assumption of dynamic symmetry with its attendant paper-made geometry really indispensable? Must we hold that the sixth and fifth century potters—often slaveborn humble artisans—knew all this geometry, and, since the constructions cannot be done mentally nor yet on the potter's table, used up precious parchment to draw these rectangles and diagonals? Or are we to assume that they derived their measurements, correct to a fairly small fraction of an inch, from contemplating figures drawn Archimedean-wise with a pointed stick on the ground, or with charcoal on a slab of wood? Even the humblest sixth century potter could divide his rule into eighths and sixteenths; but it is hard to convince ourselves that he ever performed the analyses with which Mr. Hambidge credits

<sup>&</sup>lt;sup>1</sup> In the scyphus of Figure 1 the potter used  $\frac{5}{8}$  of the height for the lower diameter and  $\frac{3}{8}$  for the projection. Most of the elaborate geometry of the analysis follows automatically from this formula alone.

him, or that he could have inherited traditional shapes based on such analyses.

To sum up,—when we notice (1) the multiplicity of indices for the containing rectangles, (2) the elaborately various and seemingly arbitrary combinations of sub-rectangles and diagonals by which the chief points of the vase are established, (3) the complete irrelevance of these rectangles to the actual areas of the vase, and especially to the contour-curves which are so largely the animating life of an ancient vase, and (4) the frequent minute divergence between this intricate analysis and the simple ratios of the linear scale,—we must allow that Mr. Hambidge's discovery of a farreaching and long-forgotten Graeco-Egyptian lore of dynamic symmetry is still very much sub judice. As it stands, the evidence is ingenious, but ambiguous. A priori, the probabilities are all against its being true.

RHYS CARPENTER.

BRYN MAWR COLLEGE.

# ROMAN COOKING UTENSILS IN THE ROYAL ONTARIO MUSEUM OF ARCHAEOLOGY

THE Royal Ontario Museum of Archaeology, Toronto, Canada. although young in years, is unusually rich in the possession of material which illuminates the private life of the Romans in its most intimate daily detail. The opportunity which this museum affords, in the Walter Massey collection, to examine tapestries, towels, sandals and tunics which were used and worn nearly two thousand years ago; to see the hairpins, toilet boxes, mirrors, jewelry, the weaving material and the beautifiers of the ancient Roman lady: to study children's dolls, balls, games and dishes: certainly brings one closer in spirit to the men, women and children who once owned these things, and impresses one with the modernity of the ancients. By no means least of the Museum's treasures, in their importance to the ancient Roman, and, I hope, still of some interest to us today, are the many excellent examples of Roman cooking utensils. These show us that in many respects the cooking utensils of antiquity were the direct ancestors of those of today. Time and experience have enabled us to improve even on the practical Romans from the point of view of utility; yet, with the exception of the fireless cooker, aluminum ware and electrical appliances, there are few modern utensils which were not found in an ancient kitchen.

The commonest and also probably the earliest of Roman cooking utensils is the wide-mouthed terra-cotta bowl, olla or caccabus, in which porridge, vegetables, meat and fowl were cooked. A cooking pot in the Royal Ontario Museum of Archaeology, (G. 1733), is fairly typical of this style. It is made of terra-cotta and measures 8\frac{3}{4} inches across the mouth. The type has remained permanent and is the direct ancestor of the vessel in which the famous lentil porridge is made by the peasants in Italy today. It was generally placed on a tripod, but might stand directly over the fire. Probably Romulus's dinner of boiled turnips,\frac{1}{2} which he is

<sup>&</sup>lt;sup>1</sup> Seneca, Apocolocyntosis Divi Claudii, 9.

represented as enjoying even in the heavens, was cooked in such a pot. In the days of Juvenal, it was used by the peasants both for cooking and serving. Martial calls it rubra testa. "If the pale bean," says he, "boils for you in a red earthen pot (rubra testa) you may scorn the tables of rich patrons." The same author mentions this vessel again in connection with porridge. Apuleius writes of a pretty kitchen maid, Fotis, who prepared mellitum pulmentum in a little olla, ollulam. In our one surviving Roman cook book, Apicius de re coquinaria, this utensil is called olla or caccabus. Many are the things therein referred to, which are cooked in it, among others, fish, porridge, beans, peas, fowl, pork, and rabbit.

The great majority of the cooking utensils in the Royal Ontario Museum were found in Egypt. Near Thebes, in what appeared to be the remains of a burnt house, a rather complete kitchen equipment was discovered. This set belongs to the Walter Massey collection and contains twenty-seven pieces of bronze in an excellent state of preservation, with a beautiful green patina. The quality and the number of the pieces indicate that they come from a rather pretentious establishment, and Professor Currelly calls them "The Cooking Utensils of a Rich Man's House." The vessels are cast and the sheet of the metal is quite thin. Their date is probably the early period after the Roman occupation of Egypt. It is interesting to note that all are designed for stewing or boiling. In this connection, one recalls the statement of Celsus, that food is more digestible when boiled than when fried or broiled. It is also interesting to observe that the small size of these vessels does not indicate that the Romans were gourmands.

<sup>&</sup>lt;sup>1</sup> Juv. Sat. XIV, 169 ff.

<sup>&</sup>lt;sup>2</sup> Epigrams, XIII, 7.

<sup>&</sup>lt;sup>3</sup> Epigrams, XIII, 8.

<sup>&</sup>lt;sup>4</sup> Metamorphoses II, 7.

<sup>&</sup>lt;sup>5</sup> Cf. Apic. II, 41; II, 45 hidrogarata isicia; III, 68 Aliter cucurbitas; IV, 134; IV, 135; IV, 154 Pisces frixos; IV, 160 Mullos; IV, 161 Aliter mullos; V, 185 Pultes; V, 186 Pultes; V, 188; V, 190 Lenticulam; V, 191 Lenticulam de castaneis; V, 194 Pisam farsilem; V, 195; V, 201 Pisam sive fabam; V, 203 Conciclam apicianam; V, 205, 206, 207 grue; VI, 213 In grue vel anate, perdice, turture, palumbo, columbo, et diversis avibus . . . ornas et includis in ollam . . . levas et iterum in caccabum mittis; VI, 216 Aliter gruem vel anatem ex rapis lavas, ornas et in olla elixabis cum aqua . . . levabis de olla; VI, 219; VI, 234 In fenicoptero, fenicopterum eliberas . . . ornas, includis in caccabum; VI, 251 pullum in caccabum; VII, 319 Tubera radis . . . mittis in caccabum VIII, 386 Porcellum . . . in ollam mittes; VIII, 399 Aliter leporem.

There is also a bronze counterpart (G. 1693) of the terra-cotta bowl just mentioned above, which was used for a similar purpose. The height is  $6\frac{1}{2}$  inches; diameter at mouth, 8 inches. There is a smaller utensil of similar shape (G. 1694) in the same collection.

In this collection, also, are three kettles with swinging handles (G. 1700, G. 1715, G. 1716). Each of the handles is bent into a ring at the top so that the caldrons might be hung on a crane, or, to satisfy the Roman sense of order, on the wall when not in use. At the ends, the handles are bent into loops which fit into attach-

ments riveted to the sides of the caldrons. The rivets are very simple—a piece of metal put through the kettle and hammered flat on either side. G. 1700, the largest of these kettles (Fig. 1), is pear-shaped and is the only one of the three that has a lid. One end of the handle is broken. In the centre of the lid a ring has been fastened, and to this ring a chain of four links is attached. This is part of a chain which was probably originally fastened to the swinging handle, or its attachments, so that the lid might not be lost. This is the arrangement on a



FIGURE 1.—BRONZE KETTLE WITH LID: TORONTO.

Greek caldron of earlier date, about the middle of the sixth century, B.C., and on kettles in the Naples Museum (Nos. 24172, and 24173). The dimensions of this kettle are: height with handle  $13\frac{1}{4}$  inches, height without handle 8 inches, diameter at top  $5\frac{1}{4}$  inches, girth at widest part  $23\frac{7}{8}$  inches.

G. 1715 (Fig. 2) is slightly smaller and has no lid. Dimensions: height with handle  $12\frac{3}{4}$  inches, height without handle  $7\frac{9}{16}$  inches, diameter at mouth  $6\frac{7}{8}$  inches, circumference around widest part 24 inches. This kettle shows an interesting bit of ancient mending. The bottom of the pot evidently burned out. Then a disc of bronze of the exact diameter of the bottom was placed on the

<sup>1</sup> Cf. Miss Richter, Metropolitan Museum, Greek, Etruscan, and Roman Bronzes, fig. 621.

inside and soldered with soft solder in such a way as to make the kettle water-tight again. The solder has disintegrated and the disc is now loose but still in the kettle.

G. 1700 and G. 1715 belong to the class of utensils which bear the name aeneum, or the more general word for cooking pot,



FIGURE 2.—Bronze Kettle: Toronto.

caccabus; but G. 1716 is probably a situla<sup>1</sup> or kettle for holding hot water, rather than a pot for cooking. Dimensions: height without handle  $6\frac{1}{4}$  inches, diameter at mouth  $6\frac{1}{8}$  inches. It had, originally, three feet, which were soldered on, but one is now missing. These feet served the purpose of preventing the hot surface of the bottom of the vessel from coming in contact with the stand or table on which it was placed.

It may be interesting, also, to note in passing a few cal-

drons which, though not included in this excellent group, are somewhat similar to those which we have been discussing. G. 2024, of bronze, was found in upper Egypt. Dimensions: height without handle  $7\frac{1}{2}$  inches, diameter of top 5 inches, girth of widest part  $20\frac{1}{4}$  inches. It is probably of later date.

Another bronze kettle found in Upper Egypt (G. 2036), has the swinging handle attached in the usual way. This vessel has a very small mouth and must have been used for cooking soup or small vegetables. Dimensions: diameter  $3\frac{1}{4}$  inches, height with handle 11 inches. Another small bronze caldron which was found in Egypt shows still another method of attaching a swinging handle. The handle has disappeared but sockets are left in the sides of the kettle.

Another interesting utensil in this collection of bronzes from

<sup>&</sup>lt;sup>1</sup> A situla of different shape but with feet similarly attached is shown in Arch. Anz. XV, 1900, p. 188, fig. 14, among other bronzes from Boscoreale, published by Erich Pernice. Three situlae with somewhat similar feet, three each, are given by Willers, Neue Untersuchungen über die römische Bronzeindustrie, taf. V, 1–3.

Thebes is a large pail with a lid (G. 1714). The rim of the lid, which fits over the outside of the kettle, is slightly warped. Dimensions: diameter at top  $9\frac{1}{4}$  inches, height without handle  $8\frac{7}{8}$  inches.

That the strainer, or colander, was a utensil often used in the Roman kitchen is shown by frequent reference to it in the recipes of Apicius de re coquinaria. G. 1717 (Fig. 3), in "The Cooking Utensils of a Rich Man's House," is an example of a beautiful bronze colander.

Dimensions: diameter of bowl  $7\frac{1}{2}$  inches, length  $14\frac{1}{8}$  inches. The handle, upon which a lotus design has been incised, ends in the head of a bird.<sup>2</sup> The holes in the bowl are



FIGURE 3.—BRONZE STRAINER: TORONTO.

somewhat rudely punched, and do not form a fancy design as is so often the case in colanders. Strainers served for straining wine and other liquids. Snow, the ancient substitute for ice. was placed in the colander, and wine poured through to cool it. Martial<sup>3</sup> mentions a colum nivarium, and says that it was to be used for Setine wine. A cheaper variety might be strained through linen. Willers4 shows a series of articles which belonged to the wine service. They are in pairs; a vessel which looks like a saucepan, a strainer with a rim which exactly fits into the saucepan. The strainers are rather similar to the one which has just been described in the Royal Ontario Museum. It is possible that our strainer, as the flat handle and extended rim suggest, may belong to such a set, and that the vessel into which it fitted has been lost. These utensils appear to have been manufactured in large numbers in the Capuan factories from the days of Augustus to 250 A.D. However, as there are in the Museum of

<sup>&</sup>lt;sup>1</sup> It resembles somewhat a vessel in Schumacher's Sammlung antiker Bronzen, pl. IX, fig. 21. He considers it a vessel for water.

<sup>&</sup>lt;sup>2</sup> Cf. Walters, Catalogue of Bronzes in the British Museum, p. 83, No. 573, a strainer which has a lotus flower on the handle.

<sup>&</sup>lt;sup>3</sup> Epigrams, XIV, 103.

<sup>&</sup>lt;sup>4</sup> Op. cit., p. 82 ff.

Cairo¹ two strainers which are almost the exact counterparts of the one in the Royal Ontario Museum of Archaeology, and as there is no real evidence that they belonged to such a set, it is rather more probable that this too is complete in itself.² As was said, recipes in Apicius recommended the use of a colander in preparing foods and this utensil was no doubt used in cooking, as well as in straining wine.

That the man who owned these bronzes was interested in good wine as well as in good cooking is shown not only by the strainer. but also by two beautiful bronze ladles, each ending, as was usual for ladles, in the head of a bird. One (G. 1701) is 205 inches long; the other (G. 1702) is 19 inches long. Ladles such as these were used for dipping wine or other liquids from deep receptacles. The type which G. 1701 and G. 1702 represent is quite common and seems to have enjoyed a long period of popularity. As Miss Richter has observed.<sup>3</sup> one is seen in actual use on a red-figured cylix signed by Brygos, 4 and ladles of the same shape have been found at Pompeii.<sup>5</sup> Another most interesting ladle of somewhat the same type, though not belonging to the same set, is G. 1537 (Fig. 4), which was also found in Egypt, near Thebes. This, like the two just mentioned, has a deep bowl and a long handle terminating in the head of a bird, but unlike them. and unlike any I have been able to discover with certainty, it has a four-sided extension handle. The extension was probably to give added strength when great length was not needed; for the long slender handles characteristic of and necessary for wine ladles must have been a point of weakness. This ladle is of bronze.

<sup>&</sup>lt;sup>1</sup> Catalogue général des antiquités égyptiennes du Musée du Caire, Nos. 3559 and 3575. Each has a lotus design incised on the handle. 3559 was also found at Thebes.

<sup>&</sup>lt;sup>2</sup> Another type of strainer is in the Metropolitan Museum of Art, New York (cf. Miss Richter, op. cit. No. 639). It is smaller and has opposite the handle a hook-shaped projection terminating in a small oblong plate. This projection served two purposes: as a means of resting the strainer across the mouth of the jar into which the wine was poured, and for hanging it from the lip of the jar when not in use. Another of this type was published by H. L. Wilson in the American Journal of Philology, XXVIII, pp. 450 ff. It was dedicated to a goddess, as an inscription shows. Still another bronze strainer of this style, from Viterbo, was recently acquired by the Royal Ontario Museum in the Sturge collection. The type is comparatively rare, and seems to belong only to central Italy, especially Etruria.

<sup>&</sup>lt;sup>3</sup> Op. cit. No. 652.

<sup>&</sup>lt;sup>4</sup> Cf. Monumenti dell' Instituto IX, pl. 46.

<sup>&</sup>lt;sup>5</sup> Cf. J. Overbeck, *Pompeii*, p. 444, fig. 241.

and in an excellent state of preservation. It has the eye of a bird and a small design incised on the handle. Dimensions: length

when shortened 14 inches, handle  $11\frac{3}{4}$  inches (extends 5 inches when lengthened), diameter of bowl  $2\frac{1}{8}$  inches. The *Catalogue of Bronzes in the British Museum*, p. 322, gives a ladle with a wide hinged handle, No. 2466.

Among "The Cooking Utensils of a Rich Man's House," there are also examples of two short bronze ladles with shallow bowls. G. 1723, length  $8\frac{1}{8}$  inches; and G. 1703, length  $7\frac{1}{2}$  inches.

In addition to the articles which have already been noted from this most unusual set of bronzes, several others may be mentioned. G. 1691 is a vase 9 inches high. designed probably to contain wine or oil. G. 1692, a beautiful bronze pitcher, has a rather elaborate handle soldered on, height  $7\frac{7}{8}$  inches. There are also two lamp fillers (G. 1721, and 1724), of which one has lost its spout; the legs of a couch (G. 1698, 1, 2, 3, and 4); and three tiny vases (G. 1699, 1720, and 1722). Of special interest are three small utensils (G. 1718, 1695, and 1696) which, like our kitchen cups, were probably used for measuring, as they seem to correspond almost exactly to the Roman system of measures.



FIGURE 4.

LADLE WITH EXTENSION HANDLE:

TORONTO.

One contains approximately a half pint, hemina or cotula as it was called; another holds approximately one fourth of a pint, a Roman quartarius; and the third, one sixth of a pint, two Roman cyathi. One reason for believing that these were kitchen measures is the fact that in many of the recipes in Apicius the quantity of the ingredients is frequently mentioned,<sup>2</sup> and there must, therefore, have been measures in the Roman kitchen.

¹ The Catalogue général des antiquités égyptiennes du Musée du Caire, II shows a bronze ladle, No. 3567, with a handle in two parts. The illustration is not clear, but the description indicates that this ladle is like ours.

<sup>&</sup>lt;sup>2</sup> Apic. I, 1 praemissis vini sextariis duobus; I, 3; I, 7 mellis sextarium mittis; II, 46 liquaminis quartarium; II, 48; III, 105; IV, 124; IV, 129, liquaminis ciatum unum; IV, 145; IV, 169; VI, 244 olei acetabulum; VII, 268; VII, 274; VIII, 392; etc.

This collection, then, gives us a fair idea of the contents of a Roman kitchen. One may imagine a small room, for the kitchen usually was small, located in an unobtrusive part of the house with shining utensils of bronze hanging on the walls, or placed on tripods over the hearth of masonry. There would probably be also an arrangement for heating water, and terracotta amphoras in which wine, oil, and grain were stored. To complete the picture, one must add the cook, who, if one may believe Plautus, was usually armed with a knife and was witty and thievish. According to Martial, his locks were smeared with grease and soot. However, this collection, even in its completeness, omits many articles which were found in an ancient kitchen. As has been noted, the utensils found in it were designed for boiling, and no kitchen, ancient nor modern, would be complete without a frying-pan. The Royal Ontario Museum of Archaeo-

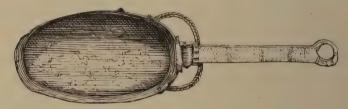


FIGURE 5.—FRYING-PAN WITH MOVABLE HANDLE: TORONTO.

logy is very fortunate in including in the Walter Massey collection a series of unique frying-pans with folding handles, which were found in upper Egypt and belong to the late Roman period. The Latin name for frying-pan as given in Apicius is sartago.¹ This name was applied to a flat pan of bronze or iron, round or oblong in shape, which was used for frying meat or fish, or for heating oil, which was an important ingredient of ancient cookery. Isidorus² tells us that the pan took its name from the noise which the oil made when heated.

The four pans in the Royal Ontario Museum of Archaeology (G. 675, 676, 677, and 678) were brought from Egypt in a mass of rust, which was cleaned away by an electrical process. They are of exceedingly fine workmanship and are rather elaborately decorated (Fig. 5). The iron has been hammered into a very thin

<sup>&</sup>lt;sup>1</sup> Apic. VII, 269 Aliter ofellas in sartagine abundanti oenogaro; VII, 270; Ponis ofellas in sartagine.

<sup>&</sup>lt;sup>2</sup> Or. XX, 8, 5.

sheet of metal so that the surface reminds one at once of the hammered silverware which comes from Tiffany's workshops, or of hammered brass. The metal of the handles is several times as thick as that of the pan itself, which is quite thin. In two cases, the handle is reinforced by pieces of twisted iron, ornamental as well as useful, which are riveted to the pan and to a projection at the back.

These handles, which are so made that they may be folded over the top, are the most interesting feature of the pans. They are attached by a hinge (Fig. 6) which is very simply constructed. At one end of the pan there was left a pointed projection wide at one end. The sides of this projection were turned up and holes cut in them. The handle ends in a scroll which was made by turning under the end of the metal. This scroll was placed between the sides of the projection, where it exactly fits, and an iron pin was

passed all the way through and hammered flat at either end. Encircling each handle, there is a movable bracelet which may be brought down over the point of the tip at the end of the pan, to hold the handle firmly in place when extended. In three cases, these



FIGURE 6.—HINGE OF HANDLE OF FRYING-PAN: TORONTO.

bracelets end in a double scroll on the upper side of the handle, and hence are ornamental as well as useful. In the fourth case, the bracelet is loose and not artistic. The fact that the handles fold over the pans and that the pans were found with other military remains, suggests that they were a part of a military equipment, and that they were thus designed in order to make the soldier's kit more compact. Frying-pans similar in shape to these but with fixed handles are fairly common. They have been found at Pompeii and elsewhere, and may be seen in many museums.<sup>1</sup>

However, specimens of frying-pans with folding handles are almost unique. I have been able to find reference to only one other which is quite similar to those in the Royal Ontario Museum of Archaeology.<sup>2</sup> It is of bronze, and was first published by M.

<sup>&</sup>lt;sup>1</sup> Guhl and Koner, Das Leben der Griechen und Römer, fig. 907; Kelsey Mau, op. cit., fig. 196; Overbeck, op. cit., fig. 241; Naples, Real Mus. Borbon. V, pl. 58, Nos. 8 and 9; Ceci, Piccoli Bronzi del Real Mus. Borbon. pl. I, Nos. 24 and 25; Tarbell, Cat. of Bronzes in Field Museum, p. 136, No. 228.

<sup>&</sup>lt;sup>2</sup> Cf. H. Willers, op. cit. p. 65.

Maxe-Werly in the Mémoires de la Société Nationale des antiquaires de France, 1883, p. 274. It was found a few months previous to this publication, says Maxe-Werly, at Rheims, and was, at the time of publication, the property of M. Leon Foucher. Dimensions: width 12 cm., length 25 cm., depth 3 cm. It has a small This pan bears an inscription T E (in monolip at one side. gram), T. TRI (in monogram), C. O. The publisher calls attention to the fact that it resembles the model which was adopted for the mess of the officers of the army in his own day. and he thinks that the ancients used it for a similar purpose. The type seems to have persisted in the army even to our own day, as a somewhat similar frying-pan in aluminum, which served as both cooking utensil and plate, formed a part of the American soldier's outfit for the recent war. The bronze pan found at Rheims and the four in the Royal Ontario Museum are, so far as I know, the only ancient examples of oblong frying-pans with folding handles. Maxe-Werly, in the article just cited, mentions the existence in the museum at Vienna of a similar utensil, round in form. Among the twenty-two Coptic utensils which were presented to the Field Museum of Natural History in Chicago in 1894 by Ali Effendi Murad, American Consular Agent, at Luxor, Egypt, is an oblong iron frying-pan with folding handle. This is somewhat similar to those in the Royal Ontario Museum.

The bronze frying-pan which was found near Rheims has no decoration, but the handles of three of those in the Royal Ontario

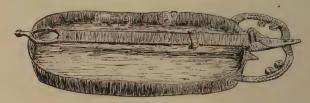


FIGURE 7.—MENDED FRYING-PAN, HANDLE BENT OVER: TORONTO.

Museum of Archaeology are rather elaborately decorated with incised lines. On two, a fish has been incised. Moreover, the arrangement of the lines incised on all of these handles seems to have been taken from a motif which was suggested by the backbone, tail, head and eyes of a fish. One of the pans (G. 676) has a lip for pouring out gravy (Fig. 5). With one exception, the pans are in an excellent state of preservation. One, however, has several large holes

which have been eaten into it by rust. This is the plainest of the four and probably the oldest. Another (G. 677) shows in two places an interesting example of ancient mending. Two very thin sheets of metal were put on the inside of the pan and riveted through (Fig. 7). A similar instance of ancient mending is found on a bronze pan at Vassar College. The dimensions vary somewhat. G. 678, entire length including handle,  $23\frac{1}{4}$  inches, length of pan  $10\frac{3}{4}$  inches, width  $6\frac{1}{2}$  inches, depth  $\frac{7}{8}$  inch; G. 677, entire length 26 inches, pan 12 inches by  $7\frac{3}{8}$  inches; G. 676, entire length  $26\frac{1}{4}$  inches, pan  $13\frac{1}{4}$  by  $7\frac{1}{4}$  inches, depth  $1\frac{1}{4}$  inches; G. 675, entire length  $25\frac{3}{4}$  inches, pan  $11\frac{1}{2}$  inches by  $7\frac{3}{8}$  inches, depth  $1\frac{1}{4}$  inches.

Near Thebes, in the same locality where the frying-pans were discovered, there were found also two other utensils (G. 646 and 647), which at first sight look like trays and may possibly have



FIGURE 8.—PAN FOR BAKING OR FRYING: TORONTO.

been used for this purpose, for, as we know, each course of a Roman cena was brought in on a tray. These utensils, however. are of hammered iron, while the trays which are mentioned in Latin literature are of silver, or wood. This fact, and the presence of lips at the sides of one of these utensils, and at the corners of the other, indicate that they, too, were pans for baking or frying, or perhaps were used for fish sauce. G. 647 (Fig. 8) has lips at the four corners. Its length is  $12\frac{7}{8}$  inches, width 7 inches, depth \( \frac{7}{8} \) inch, height of handle from point of attachment 3 inches. The state of preservation is exceedingly good. One might think that the lips of this vessel were an accident due to the fact that it was simpler to make a pan which consists of a single sheet of metal this way than any other, but this cannot be true in the case of the other utensil, as the lips are carefully wrought at the sides. G. 646 (Fig. 9) has the following dimensions: length  $15\frac{5}{8}$  inches, width  $7\frac{3}{4}$  inches, depth 1 inch, height of handle 3½ inches. The state of preservation is good. The handles are of twisted iron and are riveted on. A rivet at one end seems to indicate mending. An extra piece of metal has been put on the inside of the pan. Both the workmanship and ornamentation indicate that these pans were probably made by the same smith as the four with folding handles. At least, they belong to the same period. The Museum contains also a tiny round toy frying-pan.



FIGURE 9.—PAN FOR BAKING OR FRYING: TORONTO.

From the same locality whence came the two sets of pans come also seven iron ladles (G. 699, 700, 701, 702, 703, 704, 705). They are of varying sizes, but the surface of the metal and the style of decoration on the handles point to the probability of the same smith's shop in which the frying-pans, the keys, axes, and other iron utensils in this collection were probably made. Each ladle, including the handle, is made of one sheet of iron hammered out. The handles, with one exception, contain holes for suspension. This ends in a point and has another piece of iron riveted at right angles about one inch from the end. All of the handles are decorated with incised lines or dots. The use of these ladles is somewhat uncertain. They may have been employed in cooking, or the soldiers may have used them for melting lead.

#### Dimensions

0	4. 699,	length	$11\frac{5}{8}$	inches,	diameter	of	ladle	$4\frac{1}{8}$	inches;	
0	700,	66	$16\frac{7}{8}$	., 44	46	66	6.6	$4\frac{7}{8}$	66	
C	701,	66	$17\frac{1}{2}$	4,6	66	66	66	$5\frac{7}{8}$		
0	t. 702,	66.	$15\frac{5}{8}$	66	, 46.	66	66	$4\frac{1}{8}$	. 66 .	
	t. 703,	46	143	47	44	6.6	6.6	5	" ;	
	. 704,	1 66	165	"	66	6.6	66	$4\frac{5}{8}$	"	
	705.	"	147		44	66	44	5	66 .	

Not only were frying-pans used for cooking small pieces of meat, and spits<sup>1</sup> for roasting whole the boar which formed the most important feature of a Roman banquet, but another utensil

<sup>&</sup>lt;sup>1</sup> Verg. Aen. I, 211 ff.; Juv. Sat. XV, 81 and 82; Verg. Aen. V, 102 and 103.

also, the gridiron, *craticula*, served for roasting and broiling meat. Martial<sup>1</sup> mentions both of these instruments. He says:

Rara tibi curva craticula sudet ofella; Spumeus in longa cuspide fumet aper.

At the *cena Trimalchionis*,<sup>2</sup> one silver *craticula* contained smoking sausages, and on another the chef served snails. The more

usual materials for this utensil were. however, bronze and iron. In the Royal Ontario Museum, there is a most interesting example of an iron craticula. G. 1383 (Fig. 10), which was discovered on Hannibal's battle field at Lake Trasumenus, and which may have been used by the soldiers there. It has eight prongs branching from a central stem. Three of these are broken at the end. The iron socket into which a wooden handle was fitted is partly eaten away by rust, and the whole instrument is much corroded. This gridiron differs somewhat from the ordinary type<sup>3</sup> in that it has no transverse rod to reinforce it at the outer end. Dimensions: length with handle 22 inches. without handle 16 inches: width from outer end 8, 7,  $5\frac{1}{2}$  inches. Walters, Catalogue of Bronzes in the British Museum. gives, under late Etruscan bronzes, No.

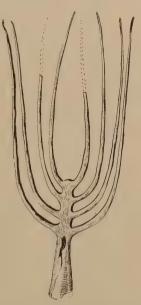


FIGURE 10.—ROMAN GRID-IRON FROM LAKE TRA-SUMENUS: TORONTO.

783, a gridiron (?) which, like the one in the Royal Ontario Museum of Archaeology, had a socket for a wooden shaft.

Another interesting iron kitchen utensil in the Royal Ontario Museum of Archaeology (G. 577) is a meat hook (Fig. 11), Latin harpago, Greek κρεάγρα, which was doubtless used for taking meat from the pot, although various theories have been given for its function. It had a Greek origin, and Helbig identi-

<sup>&</sup>lt;sup>1</sup> Mart. XIV, 221.

<sup>&</sup>lt;sup>2</sup> Petron. Sat. 31 and 70.

<sup>&</sup>lt;sup>3</sup> Cf. Daremberg and Saglio, *Dictionnaire des Ant. Gr. et Rom.*, fig. 2049; Miss Richter, op. cit. fig. 666 for a gridiron which, though of much earlier date, middle of sixth century B.C., is of the more usual type. This has eight transverse rods and four feet.

fies it with the Homeric  $\pi\epsilon\mu\pi\omega\beta\rho\lambda\rho\nu$ , but this has been disputed. An iron fingered flesh hook is described by the scholiast on Aristophanes¹ as an instrument resembling a hand with fingers bent inward, which was used to take meat from a boiling caldron. Specimens in bronze are found in the British Museum² and other museums. One of these has the prongs formed of seven radiating snakes' heads instead of seven plain hooks. Utensils of this kind, employed for the purpose stated, are represented in red-figured



FIGURE 11.—MEAT HOOK FROM FAYUM: TORONTO.

vase paintings.3 Many of these hooks have been found in Etruria. Our specimen, which was discovered in the Favum and belongs to the Walter Massev collection, is 15<sup>3</sup> inches long. It differs somewhat from the usual type in several ways. In the first place, extant examples are oftener of bronze than of iron. Sometimes both metals were combined in the same instrument. Then, too, frequently the number of prongs is five, which points to the origin of the design of the instrument from the five fingers of the hand. The handle, too, frequently ends in a hollow shaft, into which a wooden handle seems to have been fitted, rather than in a ring for suspension. In many instances, the centre is a ring from which the prongs radiate. They are not riveted on, as in our specimen. Its handle is extended to a point. To this are fastened by rivets, at angles to each other, three narrow pieces of iron hooked at both ends. In both workmanship and decoration, this flesh hook resembles closely the Egyptian frying-pans and

ladles. Incised lines are used for decoration and the handle is twisted and ends in a scroll into which a ring is fastened. This is exactly the principal of the hinge for the handle of the fryingpans. G. 579 is a three-pronged iron fork  $9\frac{1}{2}$  inches long, and 2 inches wide, which was probably used in cooking. Daremberg and Saglio, Dictionnaire des antiquités grecques et romaines, under fuscinula, say that this name, though found only in the Vulgate.

<sup>&</sup>lt;sup>1</sup> Equit. 772.

<sup>&</sup>lt;sup>2</sup> Walters, op. cit. Nos. 784, 784<sub>2</sub>, 783<sub>3</sub>, 784<sub>4</sub>.

<sup>&</sup>lt;sup>3</sup> Cf. Miss Richter, op. cit. No. 665.

was applied to a little fork with three teeth, for kitchen use only, as the Romans had no forks for eating.

Perhaps no other cooking utensil is mentioned more frequently in Latin authors than the knife, although the Romans knew nothing of its use at table, except as a carving knife. From the days of Plautus down, the cook is regularly represented as armed with this weapon, his attribute, so to speak, which he uses as the occasion demands. Plautus makes Congrio say that it is a fitting weapon for a cook, and a culinary artist. Machaerio. in the Aulularia receives his name from this necessary kitchen utensil. In the Miles Gloriosus, the following command is addressed to the chef Cario: "Culter probe." The cook in Petronius<sup>3</sup> seizes his knife and slashes a pig, and in the Testamentum Porcelli Magirus cocus says: "Transi puer, affer mihi de cocina cultrum ut hunc porcellum faciam cruentum." The cook in Apuleius<sup>4</sup> begins sharpening his knives to slav an ass. The Royal Ontario Museum possesses several specimens of this kitchen utensil, which were found in the Fayum, Egypt, and date from the Roman period, the first to the third century A.D. The handles are wooden, the blades iron, and are decorated in some cases with incised lines in designs similar to those found on the frvingpans. One has an inscription. In some cases there are iron bracelets for holding fast the wooden handles. The length of the knives varies from 9 to  $13\frac{1}{3}$  inches.

With the knives may be mentioned also an iron instrument which I think was a meat mincer, G. 652 (Fig. 12). It resembles

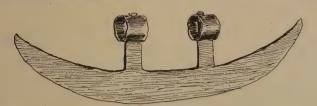


FIGURE 12.—MEAT MINCER FROM UPPER EGYPT: TORONTO.

closely certain kitchen utensils of modern days. It was found in upper Egypt, and consists of a somewhat crescent-shaped blade of iron with two uprights. Rings of iron, through which a wooden

<sup>&</sup>lt;sup>1</sup> Aul. 417.

<sup>&</sup>lt;sup>2</sup> Plaut. Miles, 1397.

<sup>&</sup>lt;sup>3</sup> Petron. Sat. 49.

<sup>&</sup>lt;sup>4</sup> Metamorphoses VIII, 31.

handle, now missing, once passed, were riveted to this piece. The state of preservation is good. The space between the rings is just large enough for the hand grasp. Dimensions: length  $11\frac{1}{4}$  inches, depth  $3\frac{1}{2}$  inches, blade 1 inch wide, width between rings  $3\frac{1}{4}$  inches. One wonders if the kitchen maid Fotis whom Apuleius<sup>1</sup> mentions may not have been using such an instrument. He says: "Suis parabat viscum fartim concisum et pulpam frustratim consectam."

Not only was a large mortar used for crushing grain<sup>2</sup> which was to be made into bread, but from the recipes in Apicius de re coquinaria we know that a smaller mortar for pounding pepper and other condiments was a necessary kitchen utensil. Of the large mortar, the Royal Ontario Museum of Archaeology shows several examples, one of black basalt which was made for that purpose, and a marble Corinthian capital which was hollowed out and used as a mortar. There are also several very interesting small mortars which were probably used for condiments, or, possibly, for medicine. One (G. 1641) is of stone and has had a small piece broken out on one side. It comes from the Fayum, Egypt, and is  $5\frac{1}{4}$  inches in diameter. Another is of basalt and is similar in material and shape to the large basalt mortar. Plautus tells us that neighbors were wont to borrow mortars from each other. Many recipes in Apicius<sup>3</sup> bid the cook pound pepper and dry mint, ginger, coriander, anise seed, or rue. Indeed, adicies piper in mortarium, fricabis or teres is a very common refrain in Apicius. Many references to the mortarium may be culled from that ancient cook book.

<sup>&</sup>lt;sup>1</sup> Metamorphoses II, 7.

<sup>&</sup>lt;sup>2</sup> Plaut. Aul. 95.

<sup>&</sup>lt;sup>3</sup> Apic. III, 98. . . . . In mortario teres piper ligisticum origanum, cepam, vinum, liquamen et oleum; III, 99. . . . . In mortario teres piper, ligisticum api semen, mentam siccam, cepam, liquamen, oleum, vinum; I, 41, Adicies in mortarium piper, ligisticum, origanum, fricabis in se, commisces in caccabum; III, 67 . . . adicies in mortarium piper et ciminum, silfi modice (id est lasaris radicem) rutam modicam; III, 98 . . . in mortario teres piper, etc.; IV, 117, Aliter sala cottabia apiciana; adicies in mortario api semen, puleium aridum, mentam aridam, gingiber, coriandrum viride, etc.; IV, 118, adicies in mortarium piper, mentam, alium coriandrum viride, caseum bubulum, sale conditum aquam, oleum, in super vinum et inferes; III, 99 . . . in mortario teres piper, etc.; IV, 125. Patina de asparagis frigida accipies asparagos purgatos, in mortario fricabis, aqua suffundes perfricabis, per colum colabis, et mittes ficetulas curtas. Teres in mortario piperis scripulos VI, adicies liquamen, fricabis vini ciatum, etc., etc.

Roman recipes sometimes give the weight of the ingredients to be used in librae (pounds), unciae (ounces), and scripuli (scruples), and so one may perhaps include in a collection of cooking utensils the two ancient instruments for weighing, librae. balances and staterae, steelyards, examples of which are preserved in most museums. The Greeks seem to have used the balances only, and representations are fairly frequent in Greek art. The use of balances is illustrated by a Greek vase with a design showing Hermes weighing the souls of Achilles and Memnon, and by a Roman lamp<sup>1</sup> representing a stork weighing an elephant and a mouse. On an amphora of Taleides reproduced in Wiener Vorlegeblätter, 1889 (taf. V. I. c.) there are balances suspended and men weighing. A scene on a Cyrenaic cylix, which was found at Vulci in Etruria, and is now in the Bibliothèque Nationale, Paris, probably represents Arcesilas II presiding at the weighing of silphium on balances suspended from the wall. That the Egyptians also made use of balances in weighing is shown by a picture on a mummy case in Toronto.

The Royal Ontario Museum has an excellent example of small balances which come from Upper Egypt and belong to the late Roman period (G. 648). It is of iron and consists of a horizontal bar with rings at either end to which were attached chains which extended to the two circular pans. The chains are missing but the pans have four holes each showing where they were attached. A vertical piece of iron extends upward from the centre of the horizontal bar. To this is attached by a rivet an iron loop which swings freely and which has a ring in the upper end. Dimensions: diameter of pans 47 inches, length of horizontal bar  $16\frac{1}{2}$  inches, height of vertical piece  $1\frac{3}{8}$  inches, height of loop  $2\frac{3}{4}$  inches. This is perhaps the simplest and most common form of the libra. In Notizie deali Scavi, V. 1908, p. 280, is recorded the discovery, August 19, 1904, of balances with an upright standard, so that, instead of being suspended, they could be placed erect on a table or shelf by means of this standard. The crossbar rested on a standard with a square base.2

The instrument for weighing which was more popular with the Romans than the balances, however, was the *statera* or steelyards,

<sup>&</sup>lt;sup>1</sup> Cf. British Museum, Guide to Exhibition Illustrating Greek and Roman Life, p. 161.

<sup>&</sup>lt;sup>2</sup> Cf. also *Mon. Ant.*, Vol. 21, p. 6, 1912, for an article on *Librae Pompeianae* by Matteo della Corte.

which was practically of the same type then, as at the present day. It has been suggested that its portability made it especially desirable to hawkers and street sellers, then as now. It consists usually of a bar divided into two unequal parts. On the longer of these, there is a scale which may be marked on one or more of the several faces. Along this portion of the bar, a movable weight may be suspended, which is prevented from sliding off by a knob at the end. The shorter portion of the bar has several hooks attached. The Royal Ontario Museum possesses two good specimens in bronze of the statera. One (G. 1679) was bought from a dealer in Rome. The length is 13 inches, length of scale 8\frac{3}{4} inches, length of shorter part of rod 4\frac{1}{4} inches. The rod is of square section but only three faces are marked. Three hooks were attached at intervals to the shorter portion of the rod. the first at the beginning of this shorter portion, the second 21/4 inches away, and the third 7 inch from the second. Only one hook is now in place, one is missing, and one is broken off. The sliding weight in the form of a man's head is exactly 8 ounces.

The second specimen in the Royal Ontario Museum (G. 642) was found in Egypt and is very similar to those just described. The rod is of bronze, but the hooks are of iron. The scale is marked on three faces. As has been said, many of the recipes in Apicius give the weight of the ingredients in pounds, ounces and scruples.<sup>2</sup>

These examples, though not exhaustive, are, I think, sufficient to show that a Roman chef might equip his kitchen quite satisfactorily to-day from the collection of cooking utensils in the Royal Ontario Museum.

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ROYAL ONTARIO MUSEUM, TORONTO.

<sup>1</sup> British Museum, Guide to the Exhibition Illustrating Greek and Roman Life, p. 161.

<sup>2</sup> Apic. I, 29. Sales conditos ad multa . . . sales communes frictos lib. I, sales ammonicos frictos lib. II, piperis albi unc, III, gingiberis unc. II, ammeos unc. I, semis, timi unc. I, semis, mittere nolueris, petrosilini mittis unc. III, origani unc. III, erucae seminis unc. I, semis, piperis nigri unc. III, croci unc. I, isopi cretici unc. II, foli unc. II, petrosilini unc. II, aneti unc. II. Ibid. I, 46. In isicia de pullo; olei floris lib. I, liquaminis quartarium, piperis semunciam. Ibid. III, 105. Et ne lactucae laedant: cimini unc. II, gingiberis unc. I, rutae viridis unc. I, dactilorum pinguium scripulos XII, piperis unc. I, mellis unc. VIIII . . . dimidium cocleare cum liquamine et aceto modico misces aut post cenam dimidium cocleare accipies, etc., etc.

Archaeological Institute of America

# TRANSFORMATIONS OF THE CLASSIC PEDIMENT IN ROMANESQUE ARCHITECTURE

ROMAN architecture, both colonial and metropolitan, shows two fundamental types of construction. In the first, inherited from Greece, the walls are built of large cut stones laid without mortar. All ornamentation is fashioned in the stone itself and forms an integral part of the building. This is the type of construction



FIGURE 1.—Opus Reticulatum with Horizontal Bands of Brickwork: Hadrian's Villa, Tivoli.

used in the earlier temples, the amphitheatres, triumphal arches, etc. In the second, introduced at a later period, the walls are built of brick and small stones laid in thick beds of cement (Fig. 1.). Frequently the heart of the wall consists entirely of American Journal of Archaeology, Second Series. Journal of the Archaeological Institute of America, Vol. XXV (1921), No. 1.

concrete. After this construction has been finished it is overlaid with stucco, marble veneer, mosaics, applied orders of stone and marble, and so forth. Such walls are found in the Imperial palaces, basilicae, baths, and most other large buildings of the Imperial period.

In the late Imperial times, especially in the colonies, the marble or stucco veneer was sometimes omitted, the brick and small stones of the wall, arranged in patterns as in the *opus reticulatum*, providing a surface decoration of considerable variety and richness.<sup>1</sup>

Both types of construction are found in Gallo-Roman architecture. In Provence where building stone of unusually fine quality abounds and where the influence of the original Greek settlers never quite disappeared, the construction is almost exclusively of stone. This is true to a less absolute degree further north, in Gallia Lugdunensis, but to the west of the Loire where good building stone is scarce, brick or brick and small stones in combination were in Gallo-Roman times as at the present day the favorite building materials.

The importance of this difference in materials is great. In Provence fine examples of the best Roman architecture stood throughout the middle ages and are still standing, with their decoration intact even to delicate details, while with the other type of construction the decorative veneer, quickly falling away or being removed to adorn new buildings, left only a memory and a tradition of its original form. The result was that Provençal architects and sculptors, with classic models always before their eyes, could not greatly misuse the classic motives. The pediment is employed there with such correctness and refinement, even in the twelfth century, that at first glance it would seem an

<sup>1</sup> This treatment became highly developed in the Eastern Empire. Cf. the so-called palace of Constantine IV Porphyrogenitus, of the tenth century. The use of diagonal stone work, known as opus reticulatum, was general under Trajan and Hadrian. It seems to have been abandoned, at least in Rome, by the end of the second century (Cf. Lanciani, Ruins and Excavations of Ancient Rome, pp. 44–45). At Pompeii there are many instances of opus reticulatum carefully laid in courses of slightly different colored tufas, particularly in the lunettes filling the spaces between lintels and their relieving arches. They were almost certainly not intended to be seen, but were to be covered with plaster. A splendid example of polychrome opus reticulatum manifestly used for decorative effect is, however, to be found in the first century aqueduct of Minturnae. (Cf. H. C. Butler, A. J. A. V. 1901, pp. 187–192; figs. C, 1, 2 and 3.)

antique fragment replaced on a Romanesque church.<sup>1</sup> But elsewhere in France, there being no actual remains of classic decorative forms to preserve the original significance of the pediment, it quickly becomes a mere decorative tradition wholly without structural significance, and changes from generation to generation and from place to place until the last descendant bears no resemblance to the parent form.

The classic pediment in its origin marks the gable end of a rectangular building. But in Imperial Roman architecture it was used to mark any entrance whatever and then was quickly adapted at small scale to form niches or tabernacles for the decoration of interior or exterior walls. As a relief from the monotony of a series of triangular pediments, the curved pediment was in-



FIGURE 2.—CHRISTIAN SARCOPHAGUS: LATERAN MUSEUM, ROME.

vented. Here the two original roof slopes were replaced by the continuous arc of a circle. This form could never have been used to any extent as an actual gable end, but as a wall decoration alternating with angular pediments it became the established rule.

In the decoration of late imperial sarcophagi the pediment often shows a further change. The horizontal cornice is omitted, leaving only the roof cornices, alternately angular and curved, on supporting columns. The series of tabernacles thus formed resembles a series of niches with angular or segmental tops (Fig. 2).<sup>2</sup>

¹ Revoil, Architecture Romane, I, Appendix, has been led by the correctness with which Roman forms and workmanship are reproduced, to assign many of the monuments which he publishes to much too early a date. Cf. Lasteyrie, Architecture Religieuse en France à l'époque romane, pp. 411 ff.

<sup>2</sup> Similar details on a Merovingian carving were found in the excavations of the church of St. Pierre at Metz, illustrated in Lasteyrie, op. cit. fig. 33.

In Provence the pediment never degenerates further than this because of the standard set by the classic Roman monuments. But west of the Cévennes we find practically no remains of decoration of the Gallo-Roman period, though there are many fragments of the undecorated substructure. The earliest monument for comparison with the late Roman work is the baptistry of St. Jean at Poitiers, assigned variously to the sixth and seventh centuries, but certainly belonging to the Merovingian period (Fig. 3).

The forms here are already very degenerate and the carved ornament is scarcely more than surface scratching, but the tradition of Gallo-Roman art is fully evident. On the outside wall is a



FIGURE 3.—St. JEAN DE POITIERS: SIDE AND REAR ELEVATION.

series consisting of two triangular pediments with a curved one between supported on deformed and somewhat dislocated pilasters; on the inside the sequence of the pediments is reversed to fit better the two arched windows, and for the same reason the horizontal cornice is here removed. The relation between the decoration on the outside and that on the inside is peculiar; the bases of the exterior pilasters being at the level of the spring of the interior arch pediments, and consequently at the top of the interior capitals. In the gable outside is a rudimentary central tabernacle with

<sup>1</sup> Shown before restoration by Gailhabaud, *Monuments Anciens et Modernes*, Vol. II, text and six plates; and in its present condition in the *Archives de la Commission des Monuments Historiques*, II, pl. 1.

a triangular pediment, flanked by two others reduced to such diagrammatic expression that only the pediments remain. The gable as a whole has still a proper pedimental form, the horizontal and raking cornices being supported by a series of little blocks cut in crude imitation of the modillions of the Corinthian cornice. It should also be noticed that above the windows in the side wall,





FIGURE 4.—St. GÉNÉROUX: GENERAL VIEW AND DETAIL OF LATERAL FAÇADE.

rows of brick alternate with small courses of stone for greater decorative effect, and that in the gable there are inlays of stone and terra-cotta. The apse is rectangular and is surmounted on its rear face by another proper classic pediment within which is again a rudimentary tabernacle consisting of a rectangle bearing a triangle.

The next milestone in the pediment's progress is the church of St. Généroux, some twenty-five miles south of Saumur, dating

from the ninth or tenth century. The facade and the transents are gone, so that there is no indication of the original gable decoration. On the other hand, the exterior of the nave, a feature lacking in the baptistry at Poitiers, gives evidence that debased curved and triangular pediments were not restricted to facades in Merovingian architecture. For the ends of the round headed windows along the sides are crowned by a moulding supported on small projecting blocks (Fig. 4), and a series of triangles is introduced between the windows. There can be no doubt that this arched moulding is not in principle an archivolt extrados but rather a series of curved pediments of a rudimentary modillioned order, alternating with triangular pediments. In the latter the modillions are omitted, as in the pediment of the temple of Minerva at Assisi. Above the windows is a band of opus recticulatum: the diagonal stone work of Roman tradition being a form of decoration within the skill of these early builders. The church of Crayant near Chinon, also presumably of the ninth or tenth century, shows a treatment which is practically identical, almost the only difference being that the triangular pediments as well as the window heads are modillioned.2

For the next century of turmoil, civilization in travail has left no indication of its architecture; but we find, nevertheless, pediment traces again in the remains of the early eleventh century church of Cunault (Fig. 5).<sup>3</sup> Here neither gables nor side walls are left, but there still exists a magnificent tower. Along the two upper stories are rows of round headed windows crowned with modillion bands, and squeezed in between the curved tops are chevrons, also of modillion bands. The windows are so close together that the chevron has no chance to be a full triangle as at St. Généroux and Cravant, but if there were any question as to its origin, the presence of a background of diagonal stone work directly above each row of windows would conclusively prove

<sup>&</sup>lt;sup>1</sup> Archiv. de la Comm. des Mon. Hist. II, pl. 2. The upper story of the gateway of the abbey of Lorsch, often assigned to this period, is evidently an imitation of a series of angular pediments supported on columns. Because of the uncertainty of the date of this structure and the fact that there seems to be nothing elsewhere at all closely related to it, I have omitted it from consideration in this paper. It certainly could not have influenced the architecture of western France.

<sup>&</sup>lt;sup>2</sup> Lasteyrie, op. cit. p. 150, fig. 134.

<sup>&</sup>lt;sup>3</sup> On the left bank of the Loire 12 km. below Saumur. Arch. de la Comm. des Mon. Hist. II, pls. 9, 10.

legitimate descent. Only extreme dearth of architectural progress could have preserved a non-structural ornament with so little change for such a length of time. Should we assume that in this case the ornament has been transposed bodily from one position to another,—from clerestory arcade or transept ends to tower



FIGURE 5.—ELEVENTH CENTURY CHURCH: CUNAULT.

walls,—or is it more probable that in the churches of the Roman-Frankish transition rudimentary applied orders were used wherever decoration was attempted, on towers as well as on walls and in gables? I think the latter is the more likely hypothesis.

The later architecture of this particular region, from Poitiers north to the Loire, shows few further traces of the classic pediment. The clerestory windows are too far apart for a continuous arcade treatment, as at St. Généroux and Cravant, and transepts

are not found. The façades of Poitou often are crowded with rows of arches, blind or pierced with windows, but there are no chevrons. In the gable, however, of Ruffec,¹ to the south of Poitiers, is a carved Ascension sunk in a shallow niche. This niche is formed by lateral uprights supporting a chevron-shaped top. With the exception of the missing horizontal cornice mem-



FIGURE 6.—St. Jouin de Marnes: Front.

ber, the niche represents summarily all the elements of the Roman tabernacle,—pediment and supporting columns,—in their proper relations.

Another example is found to the north of Poitiers, almost half way to the Loire, on the sadly damaged church of St. Jouin de Marnes (Fig. 6).<sup>2</sup> In the gable here, are clear traces of two chev-

<sup>&</sup>lt;sup>1</sup> Charente. The Ascension is a not uncommon motive for the decoration of Aquitainian gables. Cf. Poitiers, Notre Dame la Grande; Angoulême; Bordeaux

<sup>&</sup>lt;sup>2</sup> Deux Sevres. Twelfth Century. Archiv. de la Comm. des Mon. Hist. II, pls. 32, 33.

ron-topped tabernacles, flanking a central crucifixion. The background of the gable is filled with opus reticulatum, which, incidentally, is of quite general use throughout Poitou and Santonge. The tower also of St. Jouin shows a curious remnant of the chevron. As at Cunault there are two stories of large arched openings, but instead of being continuous, each is divided by a wide central pier into two groups of two arches. In the lower story the haunches of each pair of arches are linked by a small semi-circle, evidently derived from the chevron, while in the central pier the semi-circle has become a complete ring. In the upper story this decorative circle is repeated, but the semi-circles are omitted.

A much fuller adherence to Merovingian tradition is shown by the churches of Auvergne. As this region was not at all intimately connected with that of Poitiers in the Middle Ages, it appears evident that the type of architecture of the baptistry there must have been at some time prevalent throughout all of Aquitania. The treatment on the inside of the walls of St. Jean de Poitiers. two arched niches separated by a chevron-topped niche, is duplicated constantly in Auvergne on the interior of the end walls of the transepts.<sup>2</sup> At Clermont the two arched niches are filled with windows, but usually all three are blind. Outside of Auvergne this transept decoration is found only in the church of St. Etienne at Nevers (Fig. 7), a building which in many ways suggests Auvergnat architecture though actually to the east of the Loire. The same chevron-topped niche appears again here on the outside of the transept wall, alternating with round-headed niches exactly as in the rows of pediments on late Roman sarcophagi.3

<sup>&</sup>lt;sup>1</sup>Cf. Echillais and Aulnay, lateral archways of façade; Aulnay, lunettes of windows of apse; Poitiers, Notre Dame la Grande, gable, spandrils of tower and side walls; Ste. Redegonde and St. Porchaire, spandrils and lunettes of tower; St. Hilaire, spandrils of side walls and a band (perhaps restoration) around upper part of apse; Civray, spandrils of lateral arches of façade; Rétaud and Rioux, lower part of apse; Parçay-sur-Vienne, above doorways of façade; Nieuil-sur-l'Autise, bands in upper part of façade; even as far south as St. Emilion (Gironde), where there is a band above the arches in the second story of the tower (Archiv. de la Comm. des Mon. Hist. V, pl. 62). At Rivières (Indre-et-Loire) there is a curious band of continuous chevrons set in opus reticulatum across the apse wall, at mid height; there seems to be nothing of this sort anywhere else (Lasteyrie, op. cit. fig. 362).

<sup>&</sup>lt;sup>2</sup> E.g. St. Nectaire, Orcival, Issoire, Ennezat.

<sup>&</sup>lt;sup>3</sup> A blind arcade consisting of engaged colonettes joined by alternate semicircular arches and chevrons, in all respects like those at Nevers, occupied

But while these transept niches are the least changed expression of the Gallo-Roman decorative pediments, they are not by any means the only ones to be found in Auvergne. In the eleventh century church of St. Saturnin (Fig. 8)<sup>1</sup>, the upper story of the nave is decorated with arches grouped in sets of threes, and spanning from set to set are chevrons, not so crowded as at Cunault nor yet full triangles as at St. Généroux, but quite unmistakable. The same detail appears on the angles of the octagonal tower, connecting the groups of round-headed arches of the lower story



FIGURE 7.—CHURCH OF ST. ETIENNE: NEVERS.

there, and again on the rear face of the central mass above the crossing. In fact it is used wherever the spacing between round top arches permits of its proper development. It is curious, however, that St. Saturnin, the only example of typical Auvergnat architecture where chevrons appear upon the nave walls or the tower, is the only one where there are no chevron-topped niches on the inside of the transept walls.

the upper part of the south wa'l of the church of St. Demetrius at Salonica. Round-headed windows, not coming above the capitals of the colonettes, occur under the chevrons. The presence of this form in both east and west is no indication of artistic influence one way or the other, since in both places it develops naturally from a common origin.

<sup>&</sup>lt;sup>1</sup> Archiv. de la Comm. des Mon. Hist. IV, pl. 78.

The nave façades of the churches of this region are usually unfinished, or occupied by central towers, the transepts, however, are not lacking in elaborate gable decorations, and here again are found reminiscences of pediment-topped tabernacles like those of the baptistry at Poitiers. At Notre Dame du Port in Clermont<sup>1</sup> the gable triangle shows a curious combination of angular lines. In the centre is an elongated rectangle surmounted by a triangle,—the tabernacle with its pediment. This is divided in two by a



FIGURE 8.—St. SATURNIN: AUVERGNE.

central vertical line, and in each of the lower compartments so formed is a small chevron. The two flanking tabernacles, which at Poitiers were reduced to simple chevrons, have here become further simplified and have coalesced with the central motive in the form of half chevrons on either side of it. The resemblance of these geometric patterns to classic forms is not at first sight striking, and it might be reasonably questioned whether there were any connection between the two, were it not that the bands forming these Auvergnat gable decorations are all composed of the modillioned moulding, which we have seen to be the direct

<sup>&</sup>lt;sup>1</sup> Gailhabaud, op. cit. II, pl. 48.

descendant of the Corinthian cornice. Moreover, the beautiful mosaic work of brick and vari-colored lavas in the gable is evidently an elaboration of the decorative brick and stone combinations found there in Merovingian times.

At Chauriat, also in Auvergne, the arrangement is somewhat different (Fig. 9). The horizontal member of the gable instead



FIGURE 9.—CHURCH AT CHAURIAT.

of stretching from side to side at the level of the eaves, has been raised half way to the peak of the roof. As a consequence the tabernacle in the triangle above it consists only of the two vertical members, the sloping cornices of the whole roof forming the sloping cornices of the tabernacle. The space below the gable triangle is not left undecorated as at Clermont but is filled with three superposed rows of chevrons, the lowest row springing from the haunches of an arcade. The pattern thus formed seems to be

merely a series of intersecting diagonal lines, but the fact that these lines are often broken instead of running straight from end to end, shows that the builders considered their composition as being primarily composed of chevrons. The background for all this decoration is a vari-colored mosaic derived from the *opus reticulatum*, and the bands of the chevrons, tabernacle, and pediment consist of the modillioned moulding throughout.

Once started on a career of wholly meaningless gable decoration there is scarcely any limit to the designs these degenerate pediments may compose. At Issoire on the rear of the crossing and at the top of the central chapel we see two of which the origin could hardly be suspected were it not for the intermediate steps we have considered.<sup>1</sup>

Furthest south of all, the façade of the old church of St. Front at Périgueux, built at the beginning of the eleventh century and now destroyed, presented a gable decorated on a large scale with intersecting diagonal lines.<sup>2</sup> Here again the fact that many of these lines were composed of modillioned bands proves that this is only a descendant of the gable pediments of Merovingian days. The original church has been so much rebuilt that it is impossible to say whether chevrons ever nestled between the arched heads of the nave windows along the sides.

The peculiar relationship between the decorative orders on the outside of St. Jean de Poitiers and the windows which they frame, which has already been noted (p. 58), occurs throughout Auvergne. Between the upper windows of the apses, and starting at the level of the spring of the window arches, small, purely decorative orders are regularly to be found (see Fig. 8)<sup>3</sup>. The pediments which might be expected above these orders have disappeared, lost in a wide frieze of elaborate mosaic. The same curious

¹ The gable of the transept at Issoire is filled with three blind arches borne on colonettes. The two side arches are round, the central one a trefoil. This arrangement may also be a reminiscence of a triple tabernacle such as was suggested in the baptistry at Poitiers, though the expression is wholly different from the pattern work in the gable at Clermont. St. Saturnin shows also three blind arches, but all three are alike. In the church of St. Genès at Thiers there are two round arched windows in the gable joined at their haunches by a small semi-circle which encloses a very curious rosette. The whole gable was originally filled with colored opus reticulatum, which was apparently not well built, for the present masonry is certainly a reconstruction. Cf. Lasteyrie, op. cit. fig. 461.

<sup>&</sup>lt;sup>2</sup> de Verneille, L'Arch. Byzantine en France, pl. 8.

<sup>&</sup>lt;sup>3</sup> St. Nectaire, Orcival, Issoire, Clermont, St. Saturnin.

arrangement is also found along the upper part of the nave at the Cathedral of Le Puy.

If we turn our attention now to the north of the Loire, we find scarcely any architectural remains, and consequently no chevrons, before the middle of the eleventh century. But to make up for it, at that date the façade of the Cathedral of Le Mans presents a magnificent display (Fig. 10). Chevrons starting from the



FIGURE 10.—CATHEDRAL OF LE MANS.

haunches of juxtaposed arches have multiplied with dizzying prolixity; their background is still the diagonal stone work of Roman times and the chevrons are still carefully modillioned. Curiously enough, while the gable is composed of *opus reticulatum* in color, it shows no trace of the Gallo-Roman tabernacle. The windows along the side are too far apart for chevrons to stretch between, even the modillioned band is absent from their archivolt, and the tower has long since disappeared. Following this third

<sup>&</sup>lt;sup>1</sup> Lasteyrie, op. cit. fig. 228.

line north from Aquitaine into Normandy we find chevrons constantly used from the middle of the eleventh century through the twelfth and even occasionally in the thirteenth. The most

suitable spot for their development seems to have been above the archivolt of coupled windows in the towers. A peculiar variant is found on the twelfth century tower of St. Contest, near Caen, where chevrons have been placed circumflex like accents above the two arches flanking the central opening, apparently because these arches were too small to allow of the ordinary treatment (Fig. 11). Another variant is found on one side of the early twelfth century tower of Fontaine-la-Soret. where on the central pier between the arches of the two large openings is a small arched tabernacle framing a carved figure. The gables of the façades are sometimes decorated in imitation of mosaic work2 but as at Le Mans there are no traces of pediments to be found there. lower facades are usually

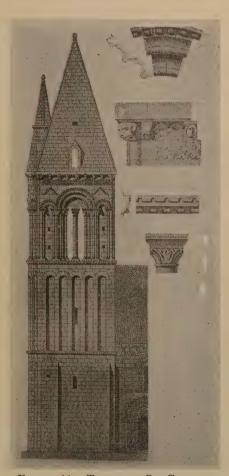


FIGURE 11.—Tower of St. Contest.

<sup>1</sup> At Aizier, ca. 1040; Fontaine-la-Soret, ca. 1100; St. Contest, ca. 1130; Douvres, Falaise, and Caen (Abbaye aux Hommes) eleventh century, Caen (Abbaye aux Dames) twelfth century, chevrons are found above the arches at the top of the towers. See Ruprich-Robert, L'Arch. normande aux XI et XII siècles.

<sup>2</sup> Caen Abbaye aux Dames; Greville-Ste.-Honorine (transept). The Norman expression of *opus reticulatum* usually consists of a diaper pattern or "goffering" cut into the face of regularly coursed stone work (see below). It is widely used, especially in the tympana of arches.

severely plain or lean rather toward a Poitevin window treatment, but in one case, the twelfth century façade of the Abbaye aux Dames at Caen, the arches of the upper story are linked by chevrons. The side windows of the nave are too far apart for chevrons and are, moreover, separated by buttresses. Inside, however, at the Cathedral of Bayeux, the succession of juxtaposed arches of the nave arcade has been treated in a way strongly reminiscent of the tower arcades of Cunault.¹ The background is a diaper pattern formed, not of different colored lavas, for Normandy had none, but of stones with shallow carvings on the faces, and between each pair of arches is a little gable, sometimes a simple chevron, sometimes a full tabernacle with a modified modillioned moulding, sheltering a Norman grotesque.²

Norman architecture is certainly better known to English speaking students than that of the eleventh and twelfth centuries in any other section of France—For this reason the details we have been considering have here already received considerable attention. The modillioned moulding, consisting of a square member supported at intervals by small rounded blocks, has been christened the "billet-mould," being supposedly derived from small applied sections of wood. It is generally considered characteristically Norman, possibly originated by Scandinavian wood workers. The very close resemblance to the moulding of St. Jean de Poitiers can leave hardly any question that it is merely a simplified Corinthian cornice. The name chevron, too, has been applied primarily to the zig-zag treatment (also called the "Baton rompu" or "broken stick" ornament) so prevalent on Norman archivolts. The latter can be traced back to Carolingian archi-

<sup>&</sup>lt;sup>1</sup> Lasteyrie, op. cit. fig. 346,

<sup>&</sup>lt;sup>2</sup> Cf. Baum, Romanesque Arch. in France, p. 210.

<sup>&</sup>lt;sup>3</sup> Porter, *Mediaeval Architecture*, I, p. 163, states that the billet mould was introduced into France toward the very end of the Carolingian period. If by France he means the Royal Domain, I am inclined to think he sets his date too early; if on the other hand he means the modern area of France, it is evident that he has missed the significance of the mouldings at St. Généroux and St. Jean de Poitiers. Lasteyrie, op. cit. p. 574, suggests that the billet mould is derived from the classic dentil band, and while this is possible in some cases, it should be observed that the billet mould is most rare in the regions where classic dentils were most frequent, and that while the dentil and the band from which it hangs are regularly cut in one piece, the bands at St. Généroux are separate from the blocks which support them, exactly as in a modillioned cornice.

<sup>&</sup>lt;sup>4</sup> Bond, Gothic Arch. in England, p. 40, Prior, Hist. of Gothic Arch. in England, p. 118, and Lasteyrie, op. cit. p. 587 ff. use the word solely as a synonym for the

tecture, and possibly originates even further back, but it is always an archivolt treatment. It has nothing in common with the detail we have been considering, except its angular form. The use of the name "chevron" or "triangle motive" for both indiscriminately is very confusing.

The story of the pediments in England is curious. Roman architecture in Britain was probably very similar to that in Gaul. though its remains are scarcer. Under barbarian rule it broke down as in France, producing an Anglo-Saxon decoration quite different from that south of the Channel but derived from the same Roman elements. The applied column, which disappeared in France, developed inordinately in England. The curved pediments assumed the form of blind arcades instead of window heads, while the angular pediments multiplied into strap work, much as in France. Mosaic stone work and the modillion band are not to be found, since they involved an elaboration of stone cutting beyond the ability of the Anglo-Saxons. The resultant surface decoration in vertical and intersecting lines is particularly marked on the towers of Barton-on-Humber and Earl's Barton (Fig. 12) which suggests very strongly that the towers of late Roman churches in Britain and probably also in Gaul were decorated with applied orders. This Anglo-Saxon decoration has been often considered to be derived from primitive half-timber construction. Obviously such a theory is based on superficial appearance, not on archaeological research.

With the Norman conquest this native style was wholly replaced by that of the conquerors. But the French chevron did not cross zig-zag moulding. Porter, op. cit. in general, uses the word in the same way, but he also considers it a form of the "Carolingian triangular motive" (Vol.

but he also considers it a form of the "Carolingian triangular motive" (Vol. I, p. 275) which was found at St. Jean de Poitiers, St. Généroux, St. Front de Périgueux (p. 163) and which was re-echoed on the towers of St. Etienne (Abbaye aux Hommes) Caen, etc. (p. 275, note 3). As "chevron" really indicates the rafters of a gable, it seems to me eminently suitable to the ornament derived from a pediment, wherefore I have restricted it to that, perhaps not usual, meaning, preferring with Lasteyrie the term zig-zag for the continuous broken torus.

<sup>1</sup> Cf. Ferguson, Hist. of Arch. II, p. 9, and Power, English Mediaeval Architecture, Pt. 1, p. 50; and, on the other hand, Armstrong, Art in Great Britain and Ireland, pp. 18–19; Statham, Short Critical Hist. of Arch. p. 307, and Fletcher, Hist. of Arch. p. 327. Simpson, Hist. of Arch. Development, II, pp. 235–236, asserts that this Anglo-Saxon surface decoration was imported from Lombardy, direct or via Germany. Jackson, Byzantine and Romanesque Arch. II, p. 193, admits the possibility of this hypothesis. To me it seems not only quite unnecessary but highly improbable.

the Channel with the Normans; instead its course turned eastward and one late vagrant example is to be found, very unostentatious but still unmistakable, between the tower arches of St. Denis. This abbey, rebuilt by Suger in 1140–1144, has been justly called the first Gothic building, for its architect showed a vision and mastery of the new methods of construction far beyond that of the hesitant experimenters who had preceded him. With the rapid revolution which changed the whole appearance of Northern French architecture in the last half of the twelfth century, the

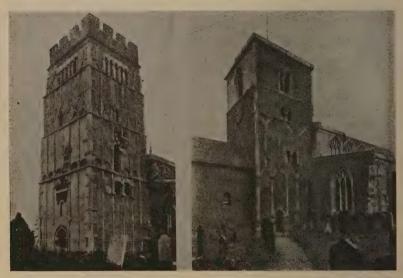


FIGURE 12.—CHURCHES AT EARL'S BARTON AND BARTON-ON-HUMBER.

chevron drops out of sight, except in backward Normandy. It may be, though, that it does not truly die, but rather is transformed into an element which lasts throughout the Gothic age to the reintroduction of the classic pediment by the Renaissance.

The steps of this possible transformation can only be sketched and not clearly shown, for the changes of those years were so amazingly rapid and the region where they occurred has been so continually devastated, from the hundred years war to the present day, that the multiple evidences seen further west in Romanesque development, are not to be found here.

The first hypothetical change which I would suggest would be that the chevron, being wholly meaningless to the tradition-break-

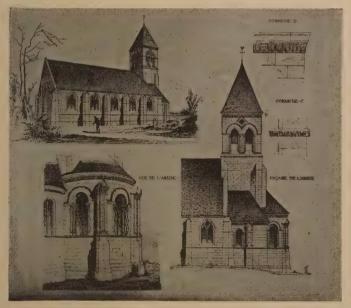


FIGURE 13.—THE CHURCH AT CHELLES.

ing Gothic builders, except as decoration, became a lozenge (Fig. 13). This lozenge was a complete decorative form and filled well the spandril between coupled pointed arches; but still it

<sup>1</sup> In the tower of Chelles (Oise), Archiv. de la Comm. des Mon. Hist. I, pl. 7, the lozenge is apparently pierced, but whether this is due to a restoration or was the original state, I cannot say. There are similar pierced lozenges between the pointed arches of the Cloister at Moissac. While these may have been developed from the chevron, it is difficult to trace any sure connection. Quite possibly they were merely a chance ornament suggested by the shape of the spandril they fill, which of course may also be the case at Chelles. The brick architecture of Toulouse not far to the south frequently employs lozengeshaped windows, but I doubt very much if these are derived from the Gallo-Roman pediment. In the tower of St. Sernin these angular openings occur in the upper stories while the lower stories have round-topped openings, from which it seems probable that this peculiar form is a later invention rather than an ancient tradition. The church of the Jacobins (late thirteenth century) and of Le Taur (fourteenth to fifteenth centuries) at Toulouse and the neighboring church of the Isle d'Albi (fourteenth century) are all rich in angular brick openings (Archiv. d. Mon. Hist. V). Were it not that the chevron-shape arcades of the tower of Mauriac (Cantal, Lasteyrie, op. cit. fig. 464, rebuilt in 1843) might indicate connection between Auvergnat towers and those of Languedoc, I should unhesitatingly class the Toulousian lozenges and chevrons as a local development of the latter part of the thirteenth century probably due to the use of brick construction.

seemed unnecessarily severe. The next change, therefore, was to a circle or a four petalled rosette, still for no purpose except ornament. Or it is possible that the circle developed from a curved chevron as on the tower of Cunault without the intervention of the lozenge. First used, presumably, on coupled tower windows, it was quickly applied to the arcades of triforium galleries,—the only other place where coupled arches under an enclosing arch leave a bare spandril above. Here, for the sake of lightness, the rosette was pierced clear through instead of being merely surface cut.<sup>1</sup> Then, back in the tower windows again, we find the rosette, first merely pierced and finally glazed.

Up to this time clerestory windows had been simple single lights, one to a bay, but with the growing demand for glass area the coupled arches of triforium and tower were quickly introduced. The pierced rosette expanded here, became complicated, at Chartres almost swamped the two lights beneath, finally it coalesced with them, changing from a group of plate tracery lights to a single line tracery window.<sup>2</sup> In this form the rosette can be plainly seen above the two pointed window arches all through the middle ages, and from it springs that whole development of elaborate lacework that forms one of the chief charms of Gothic art.

Up to the thirteenth century doors had been simple arches cut in solid walls; now there were built in front of them porches which had perforce to be sheltered with sloping roofs. Here, then, at last we find a feature resembling in form, and identical in function, with the classic pedimented portico from which we started. But archaeologically there is no connection whatever; the ancient architectural function has merely re-expressed itself in a similar form. The true descendant of the classic pediment is the tracery in the windows above.

LEICESTER BODINE HOLLAND.

PHILADELPHIA, PA.

<sup>&</sup>lt;sup>1</sup> E.g. St. Germer (Oise) ca. 1140.

<sup>&</sup>lt;sup>2</sup> Moore, *Gothic Architecture*, pp. 155 ff. implies that the compound window is derived from late Byzantine forms. In view of the absence of any connecting links, such a remote origin seems to me dubious to say the least.

# GENERAL MEETING OF THE ARCHAEO-LOGICAL INSTITUTE OF AMERICA

## DECEMBER 28-30, 1920

The Archaeological Institute of America held its twenty-second meeting for the reading and discussion of papers at the Johns Hopkins University, Baltimore, December 28, 29, and 30, 1920, in conjunction with the American Philological Association and the Maya Society. Two sessions for the reading of papers were held and there were two joint sessions with the American Philological Association. The Institute was entertained at dinner on December 30 by the Maya Society. The abstracts of the papers which follow were furnished by the authors.

## WEDNESDAY, DECEMBER 29. 9.30 A.M.

1. Mr. W. Frederick Stohlman, of Princeton University, A Group of Sub-Sidamara Sarcophagi.

In recent years there has been considerable interest in late classic Asiatic sarcophagi, so that today over forty examples are known and catalogued. They at first took their name from the finest of the group, the sarcophagus from Sidamara, now in the Museum of Constantinople. But further study showed that there were divisions within the main group and that one class could be called the Lydian while the other still remained grouped about the example from Sidamara. But in addition to these Asiatic groups there are other groups either Asiatic in origin or derived from Asiatic prototypes, one of which is the Sub-Sidamara group in question. It is formed by a fragment in the Metropolitan Museum in New York, a fragment walled into a tomb in the church of S. Nicola in Bari, and a sarcophagus in the gardens of the Villa Mattei in Rome. There are certain characteristics that bind these monuments one to the other and to the Sidamara sarcophagus. They all have the characteristic capital of the Sidamara group composed of the double volute pressed down over a luxuriant acanthus treated in coloristic fashion. They all have a background composed of an arcade carried on spiral columns, forming a series of niches crowned with the conch shell and with foliate design filling the spandrils, a design found but once in the Sidamara group, viz., on the back of the Sidamara sarcophagus itself. In addition we need go no farther than the Sidamara group to find prototypes for the figures of the Sub-Sidamara group. The Sub-Sidamara group has further ramifications which at the present time we can only indicate. Two

examples, one from the Cemetery of Concordia and the other from the Villa Ludovisi show a fusion of elements derived from the Sidamara and Sub-Sidamara groups. The original group dates from the first half of the third century and the derivatives had their origin before the century came to a close.

2. Dr. Charles Upson Clark, of New Haven, Connecticut, The Treasure of Pietroasa and Other Gothic Remains in Southeastern Europe.

No abstract of this paper was received.

3. Professor Michael T. Rostovtzeff, of the University of Wisconsin, The Origin of the So-called Gothic Style in Jewelry.

There are two theories on the subject: that of Riegl and Salia, who claim the Central European origin of the Gothic style, and that of other scholars who insist on its oriental provenance. The supporters of the second theory argue that the main features of the Gothic style were elaborated out of oriental models in South Russia, were accepted by the Germans who conquered South Russia in the third century, and brought by them in the period of migrations to Western Europe. Professor Rostovtzeff accepts this second view, and asserts that in the elaboration of the Gothic style the leading part was played not by the Germans, but by the Graeco-Iranian inhabitants of South Russia long before the Germans occupied this country. The results of excavations in South Russia make it possible to follow the development of the main features of this style from the seventh and sixth centuries B.C. to the early Middle Ages or the period of migrations. These main features are: polychromy effected by inset colored stones, the animal style of ornamentation, and the use of pseudo-granulate work for the geometric ornaments. We first notice these particular features in many finds of the sixth century B.C. in South Russia, analogous to contemporary finds in China. The origin of these features must thus be thought to be somewhere in Central Asia. They were brought to South Russia by the Scythians. A revival of the same characteristics may be noted in South Russia, China and Western Siberia in the so-called Hellenistic period. They were spread by the advance both westward and eastward of various Sarmatian tribes which belonged to the same stock as the Scythians. Many finds in South Russia allow us to follow the development of these features from the fourth century B.C. to the third century A.D. In the period of the early Roman Empire the style was adopted by the Graeco-Iranian population of Panticapaeum and became the foundation of the material civilization of the Gothic tribes which conquered Panticapaeum in the third century. The Goths and the Sarmatians in their conquest of Western Europe carried with them this style from the Dnieper to the Danube and from the Danube to Italy, Gaul, Western Germany, Britain, Spain, and Northern Africa, as is shown by many discoveries in these countries similar in all their peculiarities to the pre-German finds in Panticapaeum and South Russia in general.

(Compare the summaries of a series of lectures given by Professor Rostovtzeff at the Collège de France, R. Arch., XII, 1920, pp. 113–114.)

- 4. Mr. Ernest Dewald, of Rutgers College, Carolingian Initials. No abstract of this paper was received.
- 5. Professor Henry A. Sanders, of the University of Michigan,
  A Papyrus Manuscript of Part of the Septuagint.
  No abstract of this paper was received.
- 6. Miss Mary Hamilton Swindler, of Bryn Mawr College, Drawing and Design on Greek Vases.

Inasmuch as the Greeks created the art of drawing as practiced by all modern nations and were masters of design, more attention should be given to the problems of drawing and design on Greek vases. Although the Cretans probably contributed to the Greeks only technical facility and certain Aegean motives, their works should be studied because they show mastery of the elements of good design. The octopus vase from Gournia reveals marvellous adaptation of shapes and lines to the form of the vase, rhythm and fine contrasts of light and dark. From the beginning, the Greeks conventionalized human and animal forms into geometric patterns. These drawings were largely due to the primitive memory picture of the artist. Though they are grotesque from the point of view of proportions and truth to Nature, the designs are effective because of the arrangement and combination of patterns. The orientalizing schools, Ionia and Corinth, introduced many Eastern motives, especially weird and fantastic animal forms borrowed from imported tapestries, ivories and metal. The Ionic school shows elongation of form to suit the zones of ornament and long, graceful lines; it reveals a fondness for landscape motives and symmetry of pattern. Corinth had a variable canon of adaptation for animal forms, compressing them for friezes and lengthening them for panels or the necks of vases. The black-figured period was one of greater invention than is usually recognized. Balance, symmetry, perspective and rhythm were all attacked even in the time of the François crater. The vase in the British Museum which represents Peleus bringing the child Achilles to Chiron, the Fountain vase in Berlin and the interior of the Dionysus cylix by Execias show the excellencies of black-figured drawing and design: delicacy and precision of line, fine balance of masses, rhythm, symmetry and skillful adaptation of designs to spaces. The red-figured technique first gave the artist a real opportunity for freehand drawing. The drawing of Epictetus with its trim outlines, light forms and sober, balanced composition, cannot be excelled. Andocides, in contrast, shows a love for profusion of detail, elaborate lines and rich folds that are characteristic of Ionia. Filling the circle of the interior of the cylix caused the painter much effort: he twisted and turned his forms, and bowed out the arms and legs in movement to accomplish this end satisfactorily. Two figures sometimes pivoted about a central axis or the middle line of the design passed through the central figure of a group of three. Under the influence of the wall painter, Cimon of Cleonae, attention to linear foreshortening caused the artist to represent frequently the back of the figure or the trunk in new and violent attitudes or the leg in front or back view. Euthymides represents the tendency well, and many painters of the late severe style.

This period marks the regarding of Nature and the turning away from the primitive memory picture. The influence of Polygnotus on the vase painter was not a beneficial one, for the most part. The craftsman attempted to follow the mural art too far in introducing perspective and was untrue to the architectonic demands of his art. The Phidian vases with their noble forms arranged in friezes and silhouetted against the background, show better design and drawing. The white ground vases offer the best examples of beauty of outline drawing. Direct observation led occasionally to individualism in the representation of figures and to the rendering of emotion. Shading for modelling the forms was also a sporadic phenomenon. The decline in drawing and design resulted after the middle of the fifth century because the painter understood too well the technicalities of his art and tried to follow the major art too far. The vases become overcrowded, dramatic poses are common and the artist strives after external effects. The best work was achieved when the painter adhered to flat composition and regarded beauty of form. This beauty of form resulted from proportions which probably had a definite mathematical basis.

#### DECEMBER 29. 8 P.M.

1. Dr. T. Leslie Shear, of Columbia University, A Marble Head from Rhodes.

This paper was published in full in the JOURNAL (XXIV, 1920, pp. 313-322).

2. Dr. Charles Peabody, of Harvard University, *The Proposed Prehistoric Foundation in France*.

The Archaeological Institute of America has established schools of study at Athens, at Rome, at Jerusalem and at Santa Fé, New Mexico; it has now been decided by the same Society, in affiliation with the American Anthropological Association, to establish a foundation for Prehistoric Study in France. The impetus towards this action and the inspiration underlying it came from Dr. Henri-Martin, of Paris, a surgeon, mobilized during the war, and an anthropologist of great reputation; he is known especially for his painstaking excavations at the Mousterian site of La Quina, near Angoulême, and for the discovery there in 1911 of a skull, contemporary with the deposit with which it was found, and of pure Mousterian age. He offered to American students on his own initiative and freely some of his own land, for excavation adjoining the site where the skull was found. Acting on this generosity, a joint committee of the two scientific societies took the matter in hand, enlarged it somewhat, obtained the cordial sympathy of the leading French anthropologists, and raised the first year's budget of 21,000 francs. After their report was made, a permanent governing Board from the two societies was appointed at the Christmas Meetings of 1920. This Board is composed as follows: for the Anthropological Association, George Grant MacCurdy, Nels C. Nelson, Charles Peabody; for the Archaeological Institute, William N. Bates, George H. Chase, Wallace N. Stearns. It is hoped that Professor George Grant MacCurdy of Yale University, will accept the Directorship for the first year's work, which will begin July 1st, 1921.

The privileges which a student will have here, besides his duties of travel and study in Paris and the Provinces for a large part of the year, will be threefold, at the site of excavation itself: the benefit of getting down in the dirt himself and pulling out his own specimens; the advantages of a detailed and very intensive study of specimens on the ground, aided by the fine Laboratory at La Quina of Dr. Henri-Martin; and the chance of a comparative study in Prehistoric Archaeology, showing how often the same needs and the same materials on the two sides of the Atlantic, brought forth identity of implement. It is hoped that many students may apply; there is even question of admitting workers for the summer only; they would get at least the benefit of excavation. Names of students who may care to go to France and any questions should be sent to Charles Peabody, Peabody Museum, Cambridge, Massachusetts.

### DECEMBER 30. 9.30 A.M.

1. Dr. Emerson H. Swift, of Princeton University, Imperial Portrait Statues from Corinth.

This paper will be published in full in a later number of the JOURNAL.

2. Professor David M. Robinson, of the Johns Hopkins University, Etruscan and Later Terra-cotta Antefixes at the Johns Hopkins University.

After a brief introduction on antefixes and on the importance of making a complete collection of the numerous but scattered remains of architectural terra-cottas, the paper discussed nine unpublished architectural terra-cottas which were purchased in 1887 and which were exhibited with the paper as well as slides. One is a unique and very interesting mould for a Gorgoneion antefix. A cast was shown which proved the mould to be for making antefixes of the Capua type somewhat like the antefixes illustrated by Mrs. Van Buren in J. R. S. IV, 1914, pl. XXXIII, and by Wiegand, La Glyptothèque Ny-Carlsberg, pl. 178, No. 4. Probably that illustrated in Minervini, Terrecotte del Museo Campano, pl. XXX, 1 (Jh. Oest. Arch. I. XIV, 1911, p. 29, fig. 30) came from the Baltimore mould. Two antefixes show the Gorgon's head, one elliptical and of the sixth century, the other of the round bogey bearded type of the early fifth century, similar to specimens in Florence, Berlin, the Museo di Villa Giulia, Naples, etc. Three antefixes of the Maenad or female type, two of the sixth. and one of the early fifth century show a decided development. The first had no shell, the second had a scalloped shell above and lotus buds drooping on the sides and resembles somewhat Wiegand, op. cit. pl. 178, No. 5 and specimens in Berlin, Florence, Naples, and the British Museum, mostly from Capua, though one in Florence comes from Satricum. The type is illustrated in Minervini, op. cit. pl. VI, 2 (Jh. Oest. Arch. I. XIV, 1911, p. 27, fig. 29). The third one of this type has a complete shell or "nimbo baccellato" and the "archaic" smile is less pronounced. On the neck is painted the swastika, and the paint on the other parts on this specimen as on the others is well preserved. Similar specimens are illustrated in Daremberg et Saglio, Dictionnaire, s.v. Antefixa, p. 286, Not. Scav., 1896, p. 44 (from Satricum) Mél. Arch. Hist. XVI, 1896, pp. 157 158, etc. The family resemblance to the types of Capua is so strong in these six Baltimore antefixes (one a mould) that we can safely call them Etrusco-Campanian and safely credit them with Capua as a provenance. The resemblance to the Copenhagen, British Museum, Naples, Berlin, and other examples from Capua is so clear that, although not from the same mould, their source of inspiration is undoubtedly the same. Even in the case of those from Satricum, Capua is a likely place of manufacture. Capua had a great industry in art objects, especially pottery and bronzes, and was about the only city in ancient Italy to have a factory system. Why couldn't it in Etruscan days have made antefixes or at least moulds and exported them to Satricum and elsewhere?

Two other antefixes in the Hopkins collection are of an entirely different group, simpler and much smaller, from some tomb or small monument, and date from Hellenistic times. They are semi-elliptical and resemble antefixes found at Tarentum. One has a female head like that described in Walters, Catalogue of Terra-cottas in the Brit. Mus. D 666. The other has a Hermes head with petasus, much influenced by the Medusa type. The last terra-cotta shown was of an elongated type, representing only half of a fine male head with hair arranged loosely in ringlets. Beyond the nose the terra-cotta is smooth and on the back it is curved. This is hardly an antefix, but is an architectural terra-cotta, probably applied to some corner of a building.

- 3. Dr. Stephen B. Luce, of the Museum of the University of Pennsylvania, A Group of Architectural Terra-cottas from Corneto.

  This paper will be published in full in a later number of the JOURNAL.
- 4. Professor George W. Elderkin, of Princeton University, Dionysiac Resurrection in Vase Painting.

This paper will be published in full later.

5. Miss Gisela M. A. Richter, of the Metropolitan Museum of Art, New York, *The Firing of Greek Vases*.

This paper will be published in full later as a chapter of a book entitled The Craft of Athenian Pottery, an Investigation into the Technique of Black-figured and Red-figured Athenian Vases.

It is Miss Richter's belief, confirmed by experiment, that Attic vases were decorated in "leather-hard" condition, and were once-fired.

6. Professor Roland G, Kent of the University of Pennsylvania, A Baffled Hercules.

A marble head from Sparta, in private possession in Philadelphia, and identifiable by the lion-jaw helmet as a head of Hercules, has been written upon by Bates, A. J. A. XIII, 1909, pp. 151–157, Caskey, B. Mus. F. A. VIII, 1910, No. 46, pp. 26-28, Hyde, A. J. A. XVII, 1913, pp. 461–478. The data of condi-

tion and of provenance may now be given in greater detail than before, with a conjectural history of the fortunes of the statue to which the head belonged. An identification long since made by the owner, but not previously published, is the subject of this paper. The eyes of the head are turned upward and to the left (the spectator's right), which should be motivated. Pausanias, III, 15, 3–5, tells the story of the wounding of Hercules in his first fight with the sons of Hippocoon, and of his escape from them; the story is to illustrate the attitude of an  $\tilde{\alpha}\gamma\alpha\lambda\mu\alpha$  'Hrankéous  $\hat{\omega}\pi\lambda\iota\sigma\mu\dot{\epsilon}\nu\nu\nu$  which he mentions as in a  $\iota\epsilon\rho\dot{\epsilon}\nu$  at Sparta. Now the peculiar direction of the eyes of the marble head would accord with that of the wounded hero, retreating but on his guard; and the expression of the face, if the head be inclined about twenty degrees toward the spectator, accords with this interpretation. The whole statue, if standing erect, would have been not over 54 inches in height; perhaps it stood in a niche shrine beside the highway, facing the city from which the hero is retreating, with backward steps, in a somewhat crouching position.

Miss Georgiana Goddard King, of Bryn Mawr College, furnished the following abstract of a paper which was on the program of the Meeting, but was not read, The Importance of Sometimes Looking at Things, as exemplified in the Cardona Tomb at Bellpuig and the Retables of Barbastro and S. Domingo de la Calzada.

I. The tomb of the Viceroy Ramon de Cardona at his death in 1522 was ordered by his widow from Giovanni da Nola. She waited for it nine years. Certain elements suggest Spanish tombs, like that of Martin Vazquez de Arce in Siguenza: certain other parts are not in Merliano's taste, but more like the Ribera monuments by Antonio de Aprile and Pace Gazini of Genoa in the University church at Seville. It has been removed twice, which would explain some alterations: it was probably executed in Genoa from inadequate drawings. Vasari speaks of a nameless Spaniard competing in Naples with Girolamo da Santacroce, which would explain the Spanish traits: Giovanni's tomb for D. Pedro de Toledo is strikingly Spanish in style and was intended to be carried into Spain. The putti at the base at Bellpuig, and the Madonna on top, are in Giovanni's best style.

II. The later work of Damian Forment was discussed in *The Way of S. James*, I, pp. 421–427. The author visited Barbastro last summer to see the retable there; Forment left it unfinished and his daughter sold the reliefs to a pupil of his, Juan de Liceire, in 1560. He, in turn, got no further than the base: the upper part is of the dawning seventeenth century and the date 1602 occurs twice in the completed structure. In the design of the rich Renaissance framing of the predella scenes, which resembles Tudelilla's decorations at Saragossa, the date 1560 occurs twice. Forment had planned something like his four of the Pilar (1511) and S. Pablo (1524), at Saragossa, Huesca cathedral (1520) and Montearagon near by and strictly contemporary, rather than like Poblet (1527). He grew purer and more exquisite, and Berruguete copied a figure after him. The Barbastro dates and the pictures taken this year at S. Domingo de la Calzada, explode the theory that he ever imitated Berruguete or worked in the Rioja. Doubtless he died in Huesca in 1533.



## ARCHAEOLOGICAL NEWS 1

# NOTES ON RECENT EXCAVATIONS AND DISCOVERIES; OTHER NEWS

SIDNEY N. DEANE, Editor Smith College, Northampton, Mass.

### GENERAL AND MISCELLANEOUS

AMERICAN FOUNDATION FOR PREHISTORIC STUDIES.—At a meeting of the Governing Board of the American Foundation in France for Prehistoric Studies, held in New York, Feburary 3d, 1921, Professor George Grant MacCurdy was elected first Director of the Foundation. Dr. Charles Peabody is Chairman of the Board and for the present will also serve as Treasurer. The year's work will open at La Quina (Charente) on July 1st. After a stay of three months at La Quina, there will be excursions in the Dordogne, the French Pyrénées and to the Grimaldi caves near Mentone. The winter term will be in Paris; and the work of the spring term will include excursions to the important Chellean and Acheulian stations of the Somme valley, to neolithic sites of the Marne or other suitable locality, and to Brittany for a study of megalithic monuments. Students may enroll for an entire year or for any part thereof. Those who contemplate entering for either the year or the first term, should communicate immediately with the Director, at Yale University Museum, New Haven, Connecticut; or with Dr. C. Peabody, Peabody Museum. Cambridge, Massachusetts. One Foundation scholarship of the value of 2,000 francs is available for the first year. The special qualifications of the applicant, together with references should accompany each application. The Foundation is open to both men and women students. The address of the Director after June 15th will be care of Guaranty Trust Company, Paris.

A BIBLIOGRAPHY OF ISLAM.—In R. Hist. Rel. LXXX, 1919, pp. 271–353, René Basset gives a bibliography of recent periodical articles (1914–1918) relating to the history, geography, art, folk-lore, religion, and literature of Mohammedan countries. The titles are accompanied by brief descriptions of the contents.

BULGARIA.—Thracian Art.—In Röm. Mitt. XXXII, 1917, pp. 21-73 (pl.), B. Filow describes in detail recent finds in Southern Bulgaria, mostly dat-

<sup>1</sup> The departments of Archaeological News and Discussions and of Bibliography of Archaeological Books are conducted by Professor Deane, Editor-in-charge, assisted by Professor C. N. Brown, Miss Mary H. Buckingham, Dr. T. A. Buenger, Professor Harold N. Fowler, Professor Harold R. Hastings, Professor Elmer T. Merrill, Professor Lewis B. Paton, Professor A. S. Pease, Professor S. B. Platner, Professor John C. Rolfe, Dr. John Shapley, Professor A. L. Wheeler and the Editors.

No attempt is made to include in this number of the JOURNAL material published after December 31, 1920.

For an explanation of the abbreviations, see pp. 108-109.

ing from the fourth century B.C. Stylistically they fall into three groups: (1) purely Greek, probably importations from Amphipolis, etc.; (2) barbaric imitation of Greek motives showing strong Ionian influence; (3) barbaric, being fantastic combinations of conventionalized forms, mostly derived from animals, which have lost their original meaning. This third group is connected with Scythian and primitive Siberian art. It dies out in Thrace during the third and second centuries B.C. under the influence of Greek civilization.

CONSTANTINOPLE.—Recent Architectural Discoveries.—Discoveries due to a fire in Constantinople are briefly reported in a letter of Mr. Papadopoulos, quoted in  $C.\ R.\ Acad.\ Insc.\ 1920,\ p.\ 23$ . These include remains of the palace of Daphne, behind the Mosque of Sultan Achmet, and of an annex to this palace, possibly the  $Kauvob\rho\gamma\epsilon\iota ov$ . There are also parts of another building which may be the triklinos of Justinian II.

NECROLOGY.—Hugo Bluemner.—Hugo Bluemner, the author of the *Technologie und Terminologie*, was born in Berlin in 1844 and died at Zürich, January 1, 1919, where he had taught since 1877, and where he was also director of the University Museum of Archaeology. He was the author of numerous books and articles on ancient life and handicrafts. (S. R., *R. Arch.* XII, 1920, p. 95.)

F. Imhoof Blumer.—The distinguished numismatist, F. Imhoof Blumer, died at Winterthur in April, 1920, at the age of sixty-two. He was the author of numerous works on Greek coins, and collaborated with Professor Percy Gardner in the *Numismatic Commentary on Pausanias*. He formed two collections of coins, one of which he sold to the Berlin Münzkabinett. (S. R., *R. Arch.* XII, 1920, p. 94.)

Marcel Dieulafoy.—Born at Toulouse in 1844, Marcel Dieulafoy was by original profession an engineer. Professional occupation in the orient awakened in him an interest in archaeology which led to the production of numerous works on a wide variety of subjects, including Persia and Mohammedanism, Biblical problems, classical and oriental antiquities, military history, and the art and literature of Spain and Portugal. He died in Paris, February 26, 1920. (S. R., R. Arch. XI, 1920, pp. 363–364.)

Heinrich Dressel.—Heinrich Dressel died on July 17, 1920. He was born in Rome in 1845. As a student in Greece he collaborated with Milchhöfer in the collection and description of Spartan antiquities. He was editor of a section of the C. I. L. In 1885 he was called to a position in the Ancient Section of the Berlin Münzkabinett, and after Von Sallet's death in 1898 became director of this section. He was co-editor of the Z. Num., and directed the undertaking of a Corpus Nummorum Antiquorum. (Ber. Kunsts. XLI, 1920, pp. 235–240.)

Joseph Germer-Durand.—Born at Nîmes, September 24, 1845, Joseph Germer-Durand inherited an interest in archaeology from his father, a professor in the University. In 1887 he became the first Superior of the Hôtellerie de Notre-Dame de France at Jerusalem. The Abbé Germer-Durand interested himself especially in the Roman and Byzantine remains of Palestine; he conducted excavations on Mount Zion, and made a valuable collection of antiquities which was installed in a museum in the Hôtellerie. He contributed to the reviews numerous articles on the archaeology of Palestine. He died at San Remo, September 28, 1917. (L. Dressaire, R. Arch. XII, 1920, pp. 92–94.)

Gherardo Gherardini.—Gherardo Gherardini was born in 1855, and died June 10, 1920 at Bologna, where he was professor in the University and director

of the Museo Civico. Most of his archaeological study was devoted to pre-Roman Italy, and his best-known publication was on Italic situlae. (S. R., R. Arch. XII, 1920, p. 94.)

Thomas Dwight Goodell.—Born at Ellington, Connecticut, November 8, 1854, Thomas Dwight Goodell was Professor of Greek in Yale University from 1893 until his death at New Haven on July 7, 1920. In 1894–1895 he was professor in residence at the American School in Athens. He gave special attention to dramatic and lyric poetry and to the study of Plato. His Chapters on Greek Metric is one of his most important published works. He left a completed book on the Athenian drama, which is now in the press. (Yale Alumni Weekly, September 24, 1920, p. 6; C. W. MENDELL, A. J. P. XLI, 1920, pp. 406–407.)

Paul Lejay.—Paul Lejay was born in May, 1861, and died in June, 1920, a few months after his election to membership in the Académie des Inscriptions. He was Professor of Philology in the Institut Catholique in Paris, and most of his publications are concerned with ecclesiastical history. He also published a collection of Latin inscriptions of the Côte d'Or, and classical text-books. (S. R., R. Arch. XII, 1920, pp. 90-91.)

Bernadotte Perrin.—Bernadotte Perrin was born at Goshen, Connecticut, September 15, 1847, and died at Saratoga Springs, New York, August 31, 1920. He was Professor of Greek in Yale University from 1883 to his retirement in 1909. In his later years his interest was concentrated on the ancient historians and the application of the principles of source-criticism to them. His chief work was his translation of Plutarch in the Loeb Classical Library. (Yale Alumni Weekly, September 24, 1920, p. 6; E. P. Morris, A. J. P. XLI, 1920, pp. 405–406.)

Paul Pierret.—Paul Pierret (1836–1916) was curator in the Musée Égyptien du Louvre, 1873–1905, and Professor of Egyptian Archaeology at the École du Louvre, 1883–1905. His published works include Dictionnaire d'archéologie égyptienne, 1875; Vocabulaire hiéroglyphique, 1878; Recueil d'inscriptions inédiles du Musée Égyptien du Louvre, 1874–1878. (P. Alphandéry, R. Hist. Rel. LXXIX, 1919, pp. 353–354.)

Frank Bigelow Tarbell.—Professor Tarbell, who died at St. Raphael's Hospital, New Haven, Connecticut, on December 4, 1920, in his sixty-eighth year, was a graduate of Yale College (1873) and received the degree of Ph.D. from Yale in 1879. He was tutor and assistant professor of Greek at Yale from 1876 to 1887. In 1888-1889 he was director of the American School at Athens, and for three years was on the classical faculty of Harvard University. In 1892 he was appointed director of the American School at Athens for a term of five years, but was released from this appointment after a year of service to accept an associate professorship of Greek at the University of Chicago, where in 1894 he was appointed Professor of Classical Archaeology. He held this post until his retirement in 1918, and has since lived at Pomfret, Connecticut. As an archaeologist especially interested in the history of art, he was distinguished for his taste and his sound judgment. He was the author of numerous articles on subjects in Greek archaeology, and of a handbook on the history of Greek art which is very generally used in American colleges. (Yale Alumni Weekly, December 24, 1920, p. 335.)

**NEW REVIEWS.**—Messrs. Bestetti and Tumminelli of Milan began in June the publication of *Dedalo*, a monthly review of art, edited by Ugo Ojetti.

This abundantly illustrated periodical is devoted mainly to mediaeval, Renaissance, and modern art, but does not exclude contributions on classical art.

In the *Literary Supplement* to the London *Times*, December 16, 1920 it is announced that the Society of Antiquaries is about to publish a new journal to be known as the *Antiquaries' Journal*. The first number will appear early in 1921.

### **EGYPT**

TELL EL-KEBIR.—A Nabataean Inscription.—A Nabataean inscription discovered near Tell el-Kebir in Lower Egypt is the subject of careful commentary and interpretation by C. CLERMONT-GANNEAU in R. Hist. Rel. LXXX, 1919, pp. 1–29 (pl.; fig.). It records a dedication in behalf of an unnamed person, whom the editor believes to have been Philopator XIV, or Philopator XV, or Caesarion, the son of Cleopatra.

THEBES.—The Tomb of Kha.—An Egyptian tomb in a deserted little valley of the Libyan chain near the plain of Thebes, excavated in 1906 by the Italian archaeological mission, is described by E. Schiaparelli in Rass. d'Arte, VII, 1920, pp. 1–4 (pl.; 3 figs.). The vaulted tomb, which had never before been entered since the sixteenth century B.C., contained, besides many articles of furniture, the sarcophagus of Kha, superintendent of public works under Thothmes III, and that of his wife, Mirit. But the most notable monument in the room is a wooden statuette of Kha, perfectly preserved and in the quality of its workmanship a specimen of the best Egyptian art of the eighteenth dynasty.

#### **BABYLONIA**

The Sumerian Law-Code and the Code of Hammurabi.—It was long suspected that the Semitic law-code of Hammurabi was based upon Sumerian originals, since about sixty tablets containing legal decisions from the period of the dynasty of Ur were known. Several fragments of Sumerian law-codes have recently been discovered. These S. Langdon collects and publishes in transliteration and translation in J. R. A. S., 1920, pp. 489–514. With rare exceptions the Sumerian laws are not exact originals of those in the Semitic code; still the two codes resemble each other much in content and phraseology, and Sumerian law was obviously the forerunner of Semitic legislation.

#### SYRIA AND PALESTINE

PALMYRA.—Inscriptions.—In the spring of 1914 Professors Jaussen and Savignac of the École Biblique in Jerusalem undertook an expedition to Palmyra in order to secure inscriptions for the projected new *Corpus* of Palmyrene inscriptions. The account of the expedition and of the new inscrip-

tions that were discovered appears now for the first time in R. Bibl. XXIX, 1920, pp. 359-419 (3 figs.).

# ASIA MINOR

SAMOS.—Epigraphical Discoveries.—Inscriptions discovered by the expedition of the Berlin museums to Samos (1910–) and ranging in date from the fourth century B.C. to the Imperial period are the basis of a sketch of Samian history by M. Schede in Ber. Kunsts. XLI, 1920, pp. 117–131. The most interesting is a decree in honor of Polus, a celebrated actor who took part in the Samian celebration of the victory of Demetrius in 306 B.C.

#### GREECE

EPIDAURUS.—Recent Excavations.—In the new Athenian review, L'Acropole, I. 1920, pp. 5-14 (3 pls.) P. Cavvadias gives an untechnical report of the results of excavations at Epidaurus in 1916 and 1918. Near the Propylaea. and on the site of the little church of St. John he discovered the remains of a basilica. The central part of its payement is of mosaic. It is approached through a rectangular court the orientation of which is not identical with that of the basilica; access to this is gained through three doors in the centres of the north, west, and south sides. A small villa adjoins the basilica at the north. Its vestibule is a prolongation of that of the basilica. This room is paved with fine mosaics. Many inscriptions have also been found. One, dated by Cavvadias 223 B.C., records amendments to the constitution of the Achaean League incident to the admission of the Macedonians and their allies to the League; a second gives a list of the nomographi of the League, a third the text of a treaty made between the Epidaurians and the Achaean League on the admission of Epidaurus (242 B.C.); and a fourth is an inscription in honor of Archilochus, who negotiated a treaty of alliance with Rome for the Epidaurians.

MYCENAE.—Recent Excavations.—In the Literary Supplement of the London Times, August 20, 1920, p. 530, A. J. B. Wace completes an informal report on the recent excavations of the British School at Mycenae (see A. J. A. XXIV, 1920, pp. 293 f.). The excavation of the granary was completed. The discovery here of gold ornaments similar to those of the royal graves led to the finding of a shaft grave under this building. Its contents had been removed, apparently in the Third Late Helladic period (1400–1200 B.c.), but a number of small ornaments and vase-fragments were found. It is conjectured that when the royal graves were enclosed, after 1400 B.c., contents of some graves which were outside the circle were removed to a position within the circle. Some of Schliemann's and Tsountas's discoveries seem to confirm this view. Another interesting discovery in this region was that of a deep well between the northwest angle of the House of the Warrior Vase and the Cyclopean wall. The South House, not yet completely excavated, shows traces of wooden ties set in the stone base of its walls to support the crude brick super-

structure. Doors and thresholds were of wood. Traces of a staircase were observed, and fragments of the flat roof, made of cement over a layer of clay laid on branches of trees, were discovered. The palace on the acropolis was reëxamined. The removal of a part of the foundations of the Doric temple on this site yielded an archaic sculptured fragment from a metope of the temple. It was found that the palace was built in terraces on the south slope, and had two floors. It is possible that the principal rooms were on the higher level. for several large Mycenaean column-bases were found among the ruins of the temple. In the vestibule of the megaron was a cement floor with colored geometric decorations, surrounded by a border of gypsum slabs imported from Crete. Many calcined fragments of painted plaster from upper walls were found in the same room. The fragments of pottery discovered here were from undecorated vases of the last Mycenaean period (1400-1200 B.C.). Below the level of the courtvard Middle Helladic pottery (2000-1600 B.C.) was found. Pottery of the later Helladic period (1600-1400 B.C.) is lacking. Perhaps remains of this period were swept away when the palace was built. In the search for the debris of the palace construction an area near the ramp which leads up from the Lions' Gate was examined. Here was a well filled with rubbish, in which fragments of terra-cotta vases and of carved stone vases. intended for libations, were found. There may have been a shrine near by. In the investigation of walls close under the ramp south of the Grave Circle fragments of painted plaster showing a bull and acrobats were discovered, together with vase fragments of the Late Helladic period (1600-1200 B.C.). suggesting that the earlier palace was not on the summit of the Acropolis, but further down the slope and not far above the royal graves. The excavations. though not rich in finds of artistic value, have been of great historic interest. It appears that the first settlement of Mycenae was in the Early Helladic period (2500-2000 B.C.). In the Middle Helladic period (2000-1600 B.C.) it was a flourishing city. In the first phase of the Late Helladic period (1600-1400 B.C.) Mycenae was a rich and powerful state: to this period belong the treasures of the shaft graves. The situation of the palace of this period is still uncertain. In the last phase of the age (1400-1100 B.c.), the "Mycenaean" period par excellence, a powerful dynasty constructed the Cyclopean wall with the Lions' Gate, replanned the city, and built the domed tombs and probably the palace on the summit of the Acropolis.

# ITALY

ARCHAEOLOGICAL DISCOVERIES IN 1920.—In the Literary Supplement of the London Times, December 2 and 16, 1920, is a review by Thomas Ashby of archaeological research in Italy during the past year. In Rome, it has been shown that the round reliefs on the Arch of Constantine belong to the period of Hadrian. Remains of the Porticus Octavius, erected by Cnaeus Octavius a little after 168 B.C., and restored by Augustus, have been discovered in the Piazza S. Nicola a Cesarini. A subterranean tomb with paintings of the second century A.D., including one of a walled city, has been found in the Viale Manzoni. At Veii the temple in which the now well-known terra-cotta

figures were discovered has been more thoroughly investigated. It had three cellae, and north of it was an open tank supplied from a spring which probably had special sanctity or healing qualities. The terra-cotta figures are probably from a group of four, representing the stealing by Heracles of a stag sacred to Apollo, with Hermes and another figure (Artemis?) as spectators. The great storehouse at Ostia, described by Dr. Ashby in his report of 1919. has been more thoroughly investigated and other storehouses discovered. Another Mithraeum (the fifth at Ostia) has been found. A large hall near the so-called Temple of Vulcan was probably an Augusteum. A courtvard, an adjoining peristyle, and a semicircular building of late date, originally excavated in the time of Pius VII, have been reëxcavated. Investigations at Ostia have thrown new light on Roman domestic architecture. The common type of house at Ostia resembles the modern apartment house more than the typical Pompeian house. At Tivoli the ancient mensa ponderaria, dedicated by Varenus Diphilus, a freedman, has been found; and an adjoining hall dedicated by the same man. At Hadrian's Villa remains north of the so-called Poikile have been identified as baths. The villa of Domitian at Castelgondolfo has been studied by Lugli. It includes a little-known private theatre in which there are fragments of fine stucco relief. A curious marble relief with Egyptian scenes was found in a tomb near Albano. At Arezzo part of the brick city wall described by Vitruvius has been found. Its date is the last quarter of the fourth century B.c. or later; it was destroyed not later than 81 B.c. Prehistoric flints and pottery have been found in caves and rock shelters in the region of Falerii. and seem to date from the Mousterian period. At Pompeii work continues along the line of the Strada dell' Abbondanza. Funds have been allocated for the excavation of Herculaneum.

ALBANO LAZIALE.—An Imperial Portrait.—In Not. Scav. XVI, 1919, pp. 355 f., R. Paribeni publishes an imperial bust of the type of Marcus Aurelius and Commodus. He is inclined to consider it a portrait of Commodus.

BOLSENA.—Inscriptions.—In Not. Scav. XVI, 1919, pp. 206-209, G. BENDINELLI publishes nine inscriptions from Bolsena, of which eight are fragmentary.

CIVITAVECCHIA.—The Terme Taurine.—In Not. Scav. XVI, 1919, pp. 209–231, A. Mengarelli describes excavations in the so-called "Baths of Trajan," more properly the Terme Taurine, three miles from Civitavecchia. The place is still the site of hot springs, which were used from remote antiquity; the Aquenses Taurini of Pliny, N. H. 3, 5 took their name from them. The recent excavations completely uncovered the baths, of which a plan is given. Inscribed tiles were found to the number of 29. Of these one belongs to the year 59 a.d.; all the others to two periods: that of the building of the port of Trajan and of Centumcellae, and the reign of Hadrian. The antiquities, along with those previously found in the neighborhood, have been assembled in a local museum. Forty-two Latin and Etruscan inscriptions are published for the first time.

**FERENTO.**—Inscriptions.—In *Not. Scav.* XVI, 1919, pp. 281–283, G. Bendinelli publishes ten fragmentary inscriptions.

FLORENCE.—Unpublished Sculpture in the R. Museo Archeologico.—In *Boll. Arte*, XIV, 1920, pp. 40–48 (8 figs.), A. Minto publishes, in the form of a critical catalogue, a number of Greek and Roman sculptures that have been

acquired from private collections or through recent archaeological discoveries by the R. Museo Archeologico, Florence.

GROTTE SANTO STEFANO.—A Roman Necropolis.—In Not. Scav. XVI, 1919, pp. 280–281, G. Bendinelli gives an account of a Roman necropolis with sarcophagi and inscriptions.

ISOLA DEL GIGLIO.—Roman Remains.—In Not. Scav. XVI, 1919, pp. 275–279, P. RAVEGGI describes Roman remains at Castellare and Bagno del Saraceno, comprising walls and some handsome pavements in marble and in mosaic.

IVREA.—A Roman Aqueduct.—In the Bollettino della Società Piemontese di Archeologia e Belle Arti, III, 1919, pp. 49–53 (2 figs.), G. Borghezio and G. Pinoli describe the structure of remains of the Roman aqueduct which supplied the city of Ivrea, and trace its course to a reservoir which at one time existed on the site of the present Maresco di Bienca. A branch of this aqueduct furnished a constant flow of water to the Lago Sirio, from which waterpower was transmitted to mills between this lake and the Lago S. Michele.

LANUVIUM.—L. Catilius Severus.—In B. Com. Rom. XLVI, 1918, pp. 165–168, Alberto Galieti publishes a fragment of an inscription from Lanuvium which gives evidence that L. Catilius Severus was consul for the first time in 115 a.p., as successor of Paedo Vergilianus, who died in office.

Inscriptions.—In  $Not.\ Scav.\ XVI,\ 1919,\ p.\ 231,\ A.\ Galieti publishes four fragmentary inscriptions from Lanuvium.$ 

MAGLIANO.—An Inscription.—In Not. Scav. XVI, 1919, pp. 199–206, A. Minto publishes an inscription found near Magliano in Etruria, which locates the town of Heba. This place is mentioned by Ptolemy the geographer and is apparently the same as Herbanum oppidum of Pliny, N. H. 3, 52. The inscription, which Minto assigns to the second half of the first century, or the beginning of the second century, of the Empire, is dedicated by the Augustales to the genius of Heba. It contains the rare abbreviation cru. for crustulum. Minto recapitulates previous finds in the neighborhood of Magliano, which appears to have fallen under the hegemony of Vulci just before the Roman conquest.

OLIVETO LUCANO.—A Lucanian City.—In *Not. Scav.* XVI, 1919, pp. 243–260, V. di Cicco gives an account of excavations conducted in 1905–7 and 1912–13 at Monte Croccia-Cognato, on the site of an ancient Lucanian city of which the name is not known. Good-sized portions of a well-built city wall were uncovered and pottery was found of two varieties: vases with geometric ornamentation in red and black, belonging to the eighth century B.C.; and red-figured vases with covers of late Italic, perhaps Lucanian! manufacture.

OPPEANO VERONESE.—Remains of Lake Dwellings.—In Not. Scav. XVI, 1919, pp. 189–198, Alfonso Alfonsi gives an account of the excavations conducted by the late Professor Giuseppe Pellegrini at Feniletto. This place is about five kilometers west of Oppeano on the southern end of an ancient lake or pond, the bottom of which now consists of peat-beds. There were found some 225 piles covering an area of 50 by 33 metres. The piles, which were 3 metres in length, had been shaped and provided with a blunt point by means of some metal instrument. There were also found utensils in terracotta, a copper dagger, stone implements, and pieces of wood which had apparently been prepared for kindling fires by friction.

PIEDMONT.—Neolithic Axes.—In the Bollettino della Società Piemontese di Archeologia e Belle Arti, III, 1919, pp. 16–22 (4 figs.), P. BAROCELLI describes neolithic axes and hatchets found on various sites in Piedmont. The evidence is not sufficient to establish their chronology.

POMPEII.—Inscriptions.—In Not. Scav. XVI, 1919, pp. 232–242, M. DELLA CORTE publishes eighty-six inscriptions, many of which are election notices. An amphora handle has the name of the consul T. Catius, better known as Silius Italieus.

ROME.—The Arch of Constantine.—In B. Com. Rom. XLVI, 1918, pp. 161–164 (pl.) C. Gradara publishes an excerpt from the diary of Pietro Bracci for the year 1732 in which he states that he carved new heads for seven of the Dacian slaves surmounting the columns on the Arch of Constantine, and made an entire new statue for the eighth (right of centre, south side). He also made new heads for the emperors and other personages on the reliefs between these slaves.

The Capitoline Hill.—In Rass. d'Arte, VII, 1920, pp. 9-11 (pl.; 4 figs.), are published the plans which Lodovico Pogliaghi and Corrado Ricci have worked out for the improvement of parts of the Capitoline Hill. The intention is not only to enhance the picturesque effect but also to bring out the historical value of the various parts. A fuller account of the work is given in Boll. Arte, XIV, 1920, pp. 49-72 (5 figs.).

Excavations on the Via Ostiense.—In Not. Scav. XVI, 1919, pp. 285–354, G. Luigli gives a detailed and fully illustrated account of recent excavations in an extensive Roman sepulcretum on the Via Ostiense, near the church of S. Paolo. The sepulcretum, which was first discovered in 1897, yielded a large number of tombs, many of which were handsomely decorated with paintings and reliefs, together with ninety-three inscriptions. The tombs are assigned to four periods: the Republican and Augustan; the Imperial period to the end of the second century; the third and fourth centuries; and a later period extending into the Middle Ages.

Inscriptions from the Via Clodia.—In Not. Scav. XVI, 1919, pp. 283–284, R. Paribeni publishes three inscriptions found between the fifth and sixth kilometers of the Via Clodia, one of which is surmounted by a portrait bust in relief

TALAMONE.—Miscellaneous Finds.—In Not. Scav. XVI, 1919, pp. 261–295, Tina Campanile gives an account of discoveries at Le Tombe and Santa Francesca in Talamone. The finds include an inscribed lead pipe of Trajan, two pipes of pottery, coins, and pieces of Arretine ware of a late period, one of which has a representation of the flaying of Marsyas.

TAORMINA.—A Siculan Necropolis.—In Not. Scav. XVI, 1919, pp. 360–369, P. Orsi tells of the discovery of a Siculan necropolis at Corcolonazzo di Mola, consisting of fourteen tombs of different forms. Pottery and small objects in bronze and glass-paste were found.

VASTE.—Messapian Tombs.—In *Not. Scav.* XVI, 1919, pp. 358–360, G. Bacile di Castiglione tells of the discovery at Vaste of four Messapian tombs with small vases and two stelae, one of which is inscribed with a name.

VETULONIA.—Objects found at Poggio di Colonna.—In Ausonia, IX, 1919, pp. 11-54 (2 pls.; 34 figs.) L. Pernier discusses antiquities discovered on the site of Vetulonia: (1) a deposit of bronze helmets, including more than 100 in a fair state of preservation, and fragments of many others. They are of

the type which Schröder has called Italic, but which Pernier, comparing them with the famous helmet dedicated by Hiero at Olympia, thinks may more properly be called Etruscan, and are to be attributed to the third or fourth



FIGURE 1.
SILENUS FROM KOTTABOS
STAND: VETULONIA.

century B.C. Their condition shows that they had been deliberately injured, possibly in order to make them useless to an invading enemy, or in a religious ceremony performed by the invaders. (2) Not far from the deposit of helmets were found the fragments of a Greek kottabos stand. This had also been intentionally broken, and was considerably corroded, but the essential parts were preserved. The small disc at the top was supported by a spirited little silenus. which Pernier thinks is possibly a copy or adaptation of a Myronic type (Fig. 1). (3) To the west of the paved street which leads south from the decumanus of Vetulonia were discovered fragments of terracotta sculptures which ornamented a small building. They show traces of fire. The fragments include vouthful male and female figures, a herm and an altar, a representation of a ship in the sea, and of a lion's head fountain. They were probably parts of a frieze, and seem to have represented a scene of surprise and capture, such

as the raid of Odysseus on the Cicones. On stylistic grounds Pernier attributes them to the third century B.C., the best period of Etrusco-Roman art.

# SPAIN

BOLONIA.—Excavations on the Site of Belo.—In C. R. Acad. Insc. 1919, pp. 450–462 (2 figs.) P. Paris describes the excavations conducted at Bolonia by the École des Hautes Études Hispaniques in 1919: (1) In the industrial quarter near the sea the remains of houses and of trenches, halls, and cisterns connected with the salt fish industry were discovered. (2) The excavation of a mound brought to light the gate of two squared bastions by which the Roman road entered Belo. At some date later than its construction it had been roughly barricaded with blocks of unhewn stone. (3) The site of the forum, paved with large slabs, has been recognized, but not yet fully excavated. (4) Behind the monumental fountain discovered in 1917 were found the remains of three Corinthian temples on high podia, constituting the Capitol of the Roman colony. Much use was made of stucco in the finish of walls and columns. Two fine lions' heads which served as consoles in one of these buildings were also finished in this material. Between the central temple and the fountain, and in the axis of the temple, was a platform supporting two altars of cubical form,

of which the *pulvini* were in stucco, delicately ornamented with Ionic palmettes. Fragmentary statues were found in the cellae of the temples, but give no certain evidence of the deities to whom the temples were dedicated. (5) Numerous small objects were found in the necropolis: glass, pottery, bronze utensils and amulets. Many primitive busts which reflect an indigenous cult, were found. There is a great variety of coffins and urns. Both inhumation and incineration were practised.

# FRANCE

ARLES.—Inscriptions.—A series of inscriptions from Arles is published by L. Constant in R. Ét. Anc. XXII, 1920, pp. 172–186. An inscription on the podium of the amphitheatre (C. I. L. XII, 697) is reconstituted with the aid of two recently discovered fragments. It records the gifts of C. Junius Priscus to the basilica and the amphitheatre of Arles, and thus proves the existence of the basilica which has hitherto been a subject of conjecture. M. Constant publishes sixteen new inscriptions, and new readings of the following: C. I. L. XII, 786, 680, 682, 779, 764.

ENSÉRUNE.—Recent Excavations.—In C. R. Acad. Insc. 1920, pp. 31–37 (3 figs.) E. Pottier describes briefly the objects discovered by F. Mouret in excavations at Ensérune. There are several classes of pottery belonging to the Graeco-Iberian period: (1) local white-slip ware with conventional decoration in black and red, (2) a sort of local bucchero, (3) Gnathian vases, used as cinerary urns, (4) Campanian plates. An unusual plastic vase, with a strainer at the top and an opening at the back, was found. Architectural and sculptural fragments show that in the Roman period this part of the coast was occupied by villas.

ISTURITZ.—A Prehistoric Bone-carving.—In C. R. Acad. Insc. 1920, pp. 28–31 (2 figs.) E. Passemard reports the discovery in a cave at Isturitz (Basses-Pyrénées) of a rude image of an animal of feline species carved in reindeer horn, curiously perforated and engraved with representations of harpoons, to which a magical significance was probably attached.

NÎMES.—An Inscription on the Maison Carrée.—A new examination of the holes for the attachment of bronze letters on the façade of the Maison Carrée, reported in C. R. Acad. Insc. 1919, pp. 332–338, leads É. Espérandieu to the conclusion that antecedent to the inscription read by Séguier in 1758, recording the dedication of the building to Gaius and Lucius Caesar, was another inscription, marking the building as the gift of Marcus Agrippa to the people of Nemausus. This discovery, examined in connection with the known fact of Agrippa's visit to Nemausus in 20 B.C., indicates that the construction of the building was begun at this date, and completed before 12 B.C., the year of Agrippa's death. The second inscription, in honor of Agrippa's sons, is to be dated ca. 1–4 A.D.

PARIS.—An Egyptian Statue.—In Gaz. B.-A. I, 1920, pp. 313-318 (pl.; fig.), G. BÉNÉDITE publishes a silicon statue of the chief of the prophets, Amenem-hat-ânkh, recently acquired by the Louvre. This priest of high rank lived in the reign of Amenophis III, whose beautiful statue is the pride of the museum of Berlin. The statue of the priest is small, but it has all the dignity of a work

of heroic size, thus combining the two extremes of sizes given to the sculptures carved in the period of transition to which it belongs, the Middle Empire.

A Statuette of Jupiter Heliopolitanus.—In Syria, I, pp. 3-15 (4 pls.; 3 figs.) a bronze statuette of Jupiter Heliopolitanus (Fig. 2), discovered at Baalbek,



Figure 2.—Statuette of Jupiter Heliopolitanus: Paris.

and now in the collection of M. Charles Sursock, is the subject of a detailed study by René Dus-SAUD. The figure stands on a cubical base, which is flanked by figures of bulls supported by a wider pedestal. The god, a beardless figure, is crowned with a calathos, and wears over a chiton a sort of cuirass reaching nearly to the feet, and divided by horizontal and vertical bands into small compartments in which are represented in relief symbols associated with the cult of this Syrian god, and busts of Greek gods. On the cubical base is a relief representing Tyche, who is a Hellenized form of the Syrian goddess Atargatis. The bronze is to be dated in the second century. A large opening in the top of the wider base may have been intended for the insertion of tablets with questions addressed to the god.

#### BELGIUM

HOARDS OF COINS.—The R. Belge Num. LXXI, 1919, pp. 344–348, reports several finds: (1) At Meux, in 1916, a Roman urn

was dug up containing more than 800 Roman bronze coins of the first and second centuries A.D., from the reign of Augustus to that of Commodus—all already known. (2) At the Villa de Baucelenne at Mettet twenty-one coins of the Roman Empire (first to third centuries A.D.) were discovered. Some are undecipherable. One—a coin of Antoninus Pius—appears to be new. (3) In the forest of Soignes, in 1919, a small bronze coin of the Emperor Julian (355–363 A.D.) was found (see Cohen 2d ed. p. 82, for a description).

BRUSSELS.—The Royal Society of Numismatics.—In a prefatory notice in the R. Belge Num. LXX, 1914 (published in 1919) the president of the Royal Society of Numismatics describes the injuries and losses suffered by the collections and library of the society during the German occupation of Belgium.

# GERMANY

BERLIN.—A Statuette of Athena.—In Ber. Kunsts. XLI, 1920, pp. 62–64 (2 figs.) B. Schröder describes a fragmentary marble statuette of Athena recently acquired by the Berlin Antiquarium, and said to have been found at Eskische-

hir (Fig. 3). The figure wears a chiton and an overgirt peplos, and carries spear and shield. It is a Roman copy from a type of the Phidian period.

# GREAT BRITAIN

CARNARVON.—A Gnostic Inscription.— In Proc. Soc. Ant. XXXI, 1919, pp. 127–131 (fig.) C. R. Peers interprets a Greek inscription on a sheet of gold found near Carnarvon in North Wales. The object was a talisman, and the inscription consists of Gnostic formulae, ending with the petition, "Protect me Alphianus."

HURSTPIERPOINT.—Two Neolithic Spoons.—In Proc. Soc. Ant. XXXI, 1919, pp. 108–117 (8 figs.) J. E. COUCHMAN describes two neolithic clay spoons found near Hurstpierpoint, Sussex, and gives an account of similar spoons found on various European sites. He also publishes some bronzes of the Bronze Age now in a private collection at Hurstpierpoint, including several loops and palstaves.



FIGURE 3.—Torso of Athena: Berlin.

LONDON.—Coins of Sinope.—The recent acquisition by the British Museum of 34 drachms of Sinope, purporting to have been found together in the Crimea, yields assistance toward a closer classification of the coin issues of Sinope in the first part of the fourth century B.C. The coins are described in detail and figured by E. S. G. Robinson in *Num. Chron.* 1920, pp. 1–16 (pl.).

Greek Coins Acquired by the British Museum.—A special grant of £10,000 by the Government, and liberal gifts by individuals have enabled the British Museum to purchase many Greek coins from the collection of the late Sir Hermann Weber. With the omission (except by mere mention) of such of these as the former owner had already published, or as will be shortly included in the printed catalogues of the Museum, the new acquisitions are described in detail by G. F. Hill in Num. Chron. 1920, pp. 97–116 (2 pls.). For the Aphrodite tetradrachm of Telesiphron (cf. Num. Chron. 1892, pl. XVI, 15) £450 was paid.

A Palaeolithic Flint.—In *Proc. Soc. Ant.* XXXI, 1919, pp. 50–55 (2 figs.) R. A. Smith publishes a flint point of palaeolithic type, belonging to a hand axe, and remarkable as being polished. It seems to have been found at Clapton

Park, London. Mr. Smith also describes a Cissbury celt found at Heacham, Norfolk.

OXFORD.—Balliol College Collection of Coins.—The 1500–1600 Greek and Roman coins (nearly 400 Roman) left to Balliol College by the late Master (Dr. Strachan-Davidson) are described briefly by S. W. Grose in *Num. Chron.* 1920, pp. 117–121 (fig.). Of the Roman coins 300 range over the imperial period down to Theodosius I, and represent nearly 100 members of imperial families. The Greek collection is especially rich in tetradrachms of Alexander the Great. These have been examined by Mr. Newell.

WHIPSNADE.—In *Proc. Soc. Ant.* XXXI, 1919, pp. 39-50 (11 figs.) R. A. Smith reports on a series of flint implements from the palaeolithic "floor" at Whipsnade, Bedfordshire. They belong to the period "when the ovate and pointed core-implements were going out of fashion and the flake-implements of the early Cave-period coming in."

# NORTHERN AFRICA

BULLA REGIA.—The Thermae and other Buildings.—In C. R. Acad. Insc. 1919, pp. 374–376 L. Carton reports on the excavation of the imposing entrance to the Thermae of Bulla Regia. The Baths were approached by a fine paved way, from which three steps led to a wide platform. From the vestibule two flights of stairs descend to a long hall on the south side of the frigidarium. Architectural and sculptural fragments of the building have been found. The building at Bulla Regia which Tissot believed to be a Punic fortress has been further excavated. It has not the corner towers which Tissot imagined, but is of quadrilateral form, and rests on a base which supported a heavy cornice. M. Carton has also excavated at Bulla Regia the presbyterium of an early church and the apse of a funeral chapel, possibly a remodelling of an ancient temple.

CARTHAGE.—A Subterranean Building.—In C. R. Acad. Insc. 1919, pp. 372–374 L. Carton gives a summary account of the excavation of a subterranean building of Carthage, intended, he thinks, as a storehouse for water-jars supplied to ships sailing from the port. Some 2000 amphorae were discovered on the site. The building had a façade of fine finished stones. Forty-nine lamps were discovered on the site; several inscriptions, fragments of Corinthian capitals, a Doric capital, fragments of statuary, glass mosaic, and painted stucco. The study of the port of ancient Carthage has been greatly facilitated by photographs made by the military aviation service in Tunis.

. CYRENE.—Recent Excavations.—A brief summary of Italian discoveries in the Cyrenaica in 1920 is included in a report of recent Italian archaeological research by Thomas Ashby in the Literary Supplement of the London Times, December 16, 1920. The Tabularium, with inscriptions dedicated by the νομοφύλακες was discovered. The Temple of Zeus has been cleared. On the site of the Temple of Apollo excavation has revealed remains of the original temple of the fifth century B.C. Near by were shrines, in one of which was found a seated statue of Apollo Citharoedus. An "Iseum" contained other interesting sculptures, including a brightly colored statuette of an oriental

goddess, perhaps Atargatis. At Ptolemais was found a statue representing Africa.

**DJEMILA.**—Inscriptions.—In R. Ét. Anc. XXII, 1920, pp. 97–103, R. Cagnat publishes six inscriptions in honor of C. Julius Crescens Didius Crescentianus, a provincial raised to the equestrian rank by Antoninus Pius, and honored as the founder of the Basilica Julia at Djemila (Cuicul). The inscriptions supplement C. I. L. VIII, 8313, 8318, and 8319, and permit the construction of a stemma of the family of Crescentianus.

OULED-ABDALLAH.—A Table of Measures.—In C. R. Acad. Insc. 1919, pp. 379–387 J. Carcopino discusses an altar found at Ouled-Abdallah near Saint-Arnaud, originally dedicated to the emperor Maximinus, but after his death converted into a table of measures of capacity, with a circular cutting for the semodius and a square one for the urceus. Since the cuttings were intended to receive metal linings, they do not in their present state show the exact capacity of the two measures; but the semodius seems to have been much larger than the official semodius, and the urceus about equal to the official semodius. These facts point to a local system of measures perpetuated under Roman names.

THUBURBO-MAJUS.—An Inscription in honor of C. Vettius Sabinianus.—In C. R. Acad. Insc. 1919, pp. 355–372, Alfred Merlin discusses in detail an important honorific inscription from Thuburbo-Majus in Tunis, dedicated to C. Vettius Sabinianus, who held many important civil and military offices under the Antonines. The inscription proves that several other inscriptions containing the name Vettius Sabinianus refer to the same person.

VOLUBILIS.—Recent Excavations.—In C. R. Acad. Insc. 1919, pp. 439–444, Louis Chatelain reports the discovery of the cardo and decumani of the town of Volubilis, with remains of houses and shops. The finest houses were on the decumanus maximus. Two inscriptions were discovered, both recording dedications by Aurelius Nectorega, a centurion in command of British auxiliaries stationed at this place. One is in honor of Mithra; the other is in honor of Commodus, and must be dated 191–192 A.D.

A Dedication to Probus.—In C. R. Acad. Insc. 1919, pp. 351–354, L. Chatelain publishes an inscription from an altar at Volubilis, dedicated to Probus in 277 a.d. by Clementius Valerius Marcellinus in commemoration of a peace which had been negotiated with the African tribe of the Baquates.

# UNITED STATES

BOSTON.—The History of the Museum of Fine Arts.—The fiftieth anniversary of the Museum has occasioned the publication of a brochure by B. I. GILMAN, Secretary of the Museum, entitled Museum of Fine Arts, Boston, 1870–1920 (40 pages; 25 figs.). The financial development of the Museum; some of its important accessions; its buildings, installation, and administration are described; and a chronology of some of the chief events in its history is added.

NEW YORK.—Egyptian Sculptures.—In B. Metr. Mus. XV, 1920, pp. 137-139 (5 figs.), are published a number of recently acquired Egyptian works,

including a splendid representation of King Senusert III as a sphinx, in diorite, a diorite group of King Sahure and a nome figure, a basalt statue of the chief priest Harbas holding a figure of Osiris, a sculptor's model of a ram's head, and a fine Fayum portrait.

NORTHAMPTON.—A Statue of a Satyr.—In the Bulletin of the Hillyer Art Gallery, Smith College, May, 1920, pp. 4–6, S. N. D(eane) describes a Graeco-Roman statue of a young satyr, recently acquired for the Smith College collection (Fig. 4). It is a replica of a figure in the Glyptothek Ny Carlsberg (Reinach, Répertoire de la statuaire, IV, p. 74) and was possibly originally a fountain figure.

# EARLY CHRISTIAN, BYZANTINE, MEDIAEVAL, AND RENAISSANCE ART

#### GENERAL AND MISCELLANEOUS

HOARDS OF COINS.—The R. Belge Num. LXXI, 1919, pp. 124 ff., reports (1) an important find of coins at Amsterdam, in 1915, of 807 pieces of silver and 33 of gold, including German, Dutch, Belgian coins of the fourteenth and fifteenth centuries; (2) at Stora Sojdebg (island of Gotland), Sweden, in 1910, 2308 coins together with some bits of silver from jewelry, of various



FIGURE 4.—STATUETTE OF YOUTH-FUL SATYR: NORTHAMPTON.

dates (details not given) mostly mediaeval, representing Holland, Germany, England, Denmark, Switzerland, Ireland, Bohemia, Italy, Hungary, Byzantine Empire, Belgium, and Arab countries. *Ibid.* LXXII, 1920, pp. 78 ff., reports several finds of coins: (1) at Luxemburg, 1916, during the building of a moving picture theatre, a pitcher containing over a thousand pieces much oxidized, apparently *deniers tournois noirs* of Louis IX or Louis X; (2) at Transinne, 1919, about 2000 French deniers of the eleventh century.

#### **ITALY**

ANCONA.—Public Art Gallery.—In Cron. B. A. VII, 1920, pp. 1–9 (8 figs.) L. Serra publishes a catalogue of the rearranged Pinacoteca Civica of Ancona, which gives an idea of the richness of the collection, including such artists as Lotto, Titian, and Carlo Crivelli.

FLORENCE.—A Tondo by Signorelli.

—A hitherto unknown painting of the Madonna with Sts. Jerome and Bernard, in the Castel di Poggio, Florence, is

published by A. Chiappelli in Rass. d'Arte, VII, 1920, pp. 73–76 (4 figs.). In subject matter, arrangement of composition, and size and quality of canvas and wooden backing the picture is precisely like one in the Corsini Gallery in Florence, which has been assigned to Signorelli. A study of these two pictures side by side proves the correctness of Venturi's conjecture that pupils had a share in the Corsini painting, for the new one clearly shows the first thoughts of the master, while the one in the Corsini is apparently a replica which Luca started to make and then left to pupils to finish.

A Drawing by Pontormo.—In Boll. Arte, XIV, 1920, p. 36 (3 figs.), O. H. Giglioli publishes a hitherto unidentified drawing in the Uffizi. It is a study for two figures in Pontormo's painting of the Madonna and St. John in the Uffizi. On one side is a careful drawing of a nude youth, a study for the Virgin; the pose and expression are in almost every detail retained in the final picture. On the other side is a study for the Christ Child.

A Portrait of Baccio Valori.—In L'Arte, XXIII, 1920, pp. 134–135 (2 figs.), O. H. GIGLIOLI offers further proof for his previous identification of a portrait by Sebastiano del Piombo in the Pitti Gallery (See Boll. Arte, 1909). A detail of Battista Franco's representation of the battle of Montemurlo shows a portrait of Baccio Valori which is so closely similar to the Pitti portrait as to prove conclusively not only that the latter represents the same man but also that it served as the basis for the portrait in Battista Franco's painting.

GAGLIANO ATERNO.—Castle and Church.—In Rass. d'Arte, VII, 1920, pp. 70–72 (5 figs.), P. Piccirilli describes the principal monuments in this little town in the province of Aquila a short distance from Sulmona. The buildings are on a little hill, on the summit of which rises the vast castle, erected in 1328. It contains frescoes of the sixteenth century. The parochial church belongs partly to the fifteenth century, partly to the succeeding centuries; the lower part of the wall and the rather rudely carved portal belong to the early date, the upper part of the wall, with its beautiful rosette, to the seventeenth, and the vault to the eighteenth century. There are sixteenth century frescoes in the apse and later paintings and sculptures of interest in the church.

GENOA.—Leonardo's St. Anne.—In Rass. d'Arte, VII, 1920, pp. 197–199 (2 figs), A. Pettorelli publishes a hitherto unknown painting owned by a Genoese gentleman which is of interest in connection with Leonardo's cartoon of St. Anne, the Virgin, Christ Child, and St. John in London. The painting is by an unknown Lombard artist and has little artistic value in itself, but in the general composition it is closer to Leonardo's cartoon than is Luini's painting in the Ambrosiana.

LUCCA.—Jacopo della Quercia.—In L'Arte, XXIII, 1920, p. 160 (pl.), A. Venturi publishes a sculptural representation of a sainted knight in the cathedral at Lucca, which he attributes to the earliest period of Jacopo della Quercia. There is more of Gothic Sienese heritage in this than in the artist's later work.

RAVENNA.—New Portraits of Dante.—Two frescoes brought to light in January, 1920, in the church of San Francesco at Ravenna have given rise to much discussion in various publications, not only because they are beautiful—if somewhat mutilated—examples of trecento Giottesque painting, but more especially because in each it seems possible to recognize a portrait of Dante. The more important of the two represents a seated figure in meditation (Fig. 5). While lacking the crown of laurels and other obvious accessories of a poet, the

features are not unlike those to be seen in other portraits believed to be of Dante; they are particularly similar to those of the later portrait on the poet's tomb. The location of the portrait, over a door that led from the church into the Francescan convent, suggests the hypothesis that the original tomb of the poet was near this door; such a hypothesis seems to give a satisfactory interpretation of various literary references to the tomb. The second fresco is a fragment of a Crucifixion (Fig. 6); the suggestion that the prominent figure in profile who gazes longingly toward the now lost cross is likewise a portrait of Dante

Figure 5.—Portrait of Dante: Fresco: Ravenna.

is more evasive of proof but nevertheless fascinating.

Pomponio Allegri.—Two recently found paintings by the son of Correggio are published by C. Ricci in Rass. d'Arte, VII, 1920, pp. 12-14 (3 figs.). They do not give the artist a high rank but have some interesting and original features. The more important of the two paintings is a representation of Charity, now in the museum at Ravenna. Charity is not the usual classical half-draped type. holding two children, but a real woman dressed in contemporary costume, in the room of a real home. She stands with her back to us, her face in profile, and nude children (very badly drawn) play all about her. The other painting is a Madonna, now in the Brera. Its most interesting characteristic is the very modern treatment of the landscape.

ROME. — Three Christian Tombs.—F. Cumont, in a note communicated to the Académie des Inscriptions (C. R. Acad.

Insc. 1919, pp. 447–449) reports the discovery near the church of S. Sebastiano on the Via Appia of three Christian tombs of various dates, decorated with frescoes. The excavations have shown that this whole site is rich in antiquities.

The Menotti Donation.—From the gift of sixteenth and early seventeenth century furniture and paintings recently made to the state by Mario Menotti to fit up one of the rooms in the apartment of Paul III in the Castel S. Angelo, R. Papini publishes in Rass. d'Arte, VII, 1920, pp. 61–66 (6 figs.), the most important paintings. Most of them are by artists who were Venetian either by birth or by adoption. A Madonna and Child is a splendid example

of the work of Montagna; in its emphasis upon pure form, with subordination of color effects, it appears the progenitor of modern cubism. A St. Jerome is the work of the early years of Lotto. A Redeemer and St. Onofrio are by followers of Carlo Crivelli who were also influenced by engravings by Dürer and followers. A fine painting by Paris Bordone represents Christ with the Cross. Finally, a canvas representing the Education of Bacchus is attributed to Van Dyck.

SESSA AURUNCA.—Byzantine Coins.—In Not. Scav. XVI, 1919, pp. 356–358, ALDA LEVI reports the discovery of a hoard of Byzantine coins. With the

exception of two gold pieces the coins are of bronze, and 2000 of the number cannot be deciphered. The rest date from about 526 to about 550 A.D., representing the reigns of Justinian I and the four Ostrogothic kings from Athalaric to Totila.

VENICE.—Veronese's Juno.
—In Rass. d'Arte, VII, 1920, pp. 151–153 (fig.), the Editor notes the restitution to Italy of the Juno by Paolo Veronese, which has for many years been in the Brussels museum. The painting is to be replaced in the soffit of the room of the Consiglio dei Dieci in the Ducal Palace at Venice, for which it was painted.

VOLTERRA. — Painting in the Fourteenth Century.—In L'Arte, XXIII, 1920, p. 162, M. BATTISTINI publishes a notice from the archives of Volterra which shows that Francesco di Neri da Volterra was in Volterra in 1343. This makes plausible P. Consortini's



Figure 6.—Fragment of Crucifixion: Fresco: Ravenna.

hypothesis that the painting of the Badia di S. Giusto at Volterra may have been executed by this artist rather than by Giotto, as the tradition of Volterra would have it.

#### SPAIN

MADRID.—A Triptych by Gerard David.—A splendidly preserved triptych with the subject of the Nativity in the central panel and the donor and wife and patron saints in the wings is published by A. L. MAYER in Z. Bild. K. XXI, 1920, p. 97 (pl.). The painting has been for centuries in a family of Navarre and has suffered but slight injuries and no restorations. Its owners

have thought it the work of Memling; but its style places it in the second period of David's activity, when he was strongly influenced by Hugo van der Goes. In fact, its closest parallel in other of David's pictures is found in the Munich Adoration of the Kings, which M. J. Friedländer considers a copy of a lost work by Goes. It seems quite evident that the new triptych was likewise inspired by a now lost picture by Goes.

#### FRANCE

METZ.—Miniatures Illustrating a Work of King René.—In C. R. Acad. Insc. 1920, pp. 3–9, the Comte Paul Durrieu reports his identification, in the Library of Metz, of five miniatures illustrating the allegorical work of King René of Anjou, entitled the Mortifiement de vaine plaisance. He traces them to a manuscript described in the Bibliothèque lorraine of Don Calmet (1751), who regarded it as the original manuscript.

#### BELGIUM

HOARDS OF COINS.—In R. Belge. Num. LXXI, 1919, pp. 121-124, the discovery of several hoards of coins is reported: (1) at Millen, in 1916, 171 deniers of Liège and Brabant of the twelfth and thirteenth centuries, a few not hitherto published; and (2) at Fouron-le-Comte (province of Liège), in 1918, 18 gold pieces and several hundred silver pieces—still others were stolen at the time of the discovery—representing money of Belgium, Holland, Spain, France, and England of the reigns of Albert and Isabel and Philip IV. Ibid. LXXI, 1919, pp. 125 ff., reports the discovery at Vielsalm à Saint-Vith in 1915, of two pots of silver coins, mostly German Schüsselheller. These coins fell into the hands of the German authorities and a full description was not possible until 1920 (ibid. LXXII, pp. 79 ff.). There were over 7000 pieces of the sixteenth century, all silver except two, which were gold, and nearly all German although seventy-eight were coins of Brabant, Liège, etc. It seems probable that the carrier of this treasure had brought it from Germany and lost his life in the religious wars after he had concealed it. Ibid. LXXII, 1920, pp. 78 ff... reports several finds of coins: (1) at Majeron, a splendid aureus of Vespasian: (2) at Ville-My, a paper package of coins found (1919) in a hole in the wall of an old house, mostly of the Low Countries (seventeenth century) but including a few French coins, one of which—a half-crown of Louis XIV—is very rare; (3) at Baelen-Wetzel, in 1917, a pot of coins, some of which were shared by the two peasants who discovered them. About 92 have been examined. These are pieces of the sixteenth and seventeenth centuries of Holland and Belgium.

#### **GERMANY**

BERLIN.—Accessions to the Collections of Chinese and Japanese Art.—In Ber. Kunsts. XLI, 1920, pp. 65–72 (4 figs.) T. Klee reports the acquisition for the Berlin museums of two early Chinese terra-cottas, a vase in the form of a ram, and a statuette of a boy; a marble seated Buddha, possibly to be attributed to the eighth century; and two Buddhist reliefs of gilded bronze from Japan, belonging to the Suiko period.

Central Rhine Tapestries.—Two fine tapestries of about 1500, attributed with certainty to the Central Rhine school, have been acquired by the Berlin

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museums, and are published in *Ber. Kunsts.* XLI, 1919, pp. 22–52 (12 figs.) with full description and comment by H. Schmitz. One represents the story of Susanna; the other that of the Prodigal Son.

The Simon Collection.—An unusually rich collection of objects of art has been given to the Berlin museums by Dr. J. Simon, and some of its important pieces are described in *Ber. Kunsts.* XLI, 1920, pp. 184–230 (29 figs.): the German Renaissance sculpture by Dr. Demmler; the Gothic sculptures by Dr. Volbach; the paintings by M. J. Friedländer, including a Madonna of the style connected with the name Adriaen Isenbrant, copied from the Madonna of the Pala altar by Jan van Eyck; and the tapestries, including examples of German, Flemish, French and English work, by H. Schmitz.

The Solly Collection.—In Ber. Kunsts. XLI, 1920, pp. 6–22, C. Brinckmann gives a biographical sketch of Edward Solly, the English merchant whose Renaissance paintings formed the basis of the Prussian collection early in the last century. He publishes correspondence relating to the purchase of the collection, and gives a list of the most important paintings in it.

Three Renaissance Medals.—In the Simon collection, recently given to the Berlin museums, are three Renaissance medals which are the subject of an article by K. Regling in *Ber. Kunsts.* XLI, 1920, pp. 90–96 (5 figs.). The first is a medal of Maximilian I and Charles V (ca. 1516–1519); the second is in honor of Jacob Anton Miller, Rector of St. Sophia (1556); the third in honor of the jurist Hieronymus Morcat.

DRESDEN.—The Fiammingo.—To the work already known of Frans Duquesnoy, the Fleming of his Italian contemporaries, E. Tietze-Conrat adds in Z. Bild. K. XXXI, 1920, pp. 152–156 (7 figs.), two bronze figures in the Dresden Albertinum. They are of practically the same size and the motives of the two, treatment of the drapery, etc., indicate very clearly that they are pendants. The subject of each is heroic suicide; Cato is the actor in one, Portia in the other. The figure of Portia is shown to be the work of Duquesnoy by its resemblance to his St. Susanna in S. Maria di Loreto, Rome. But the Cato bears no relationship to the classical character of the known work of the artist; it shows a new phase, a reminiscence of the artist's Flemish home, of the paintings of his friend Rubens. Cato is the type that Rubens created in his beardless Romans.

HAMBURG.—Collection of Old Masters.—Among the monuments in the Kunsthalle at Hamburg described by G. Paull in Z. Bild. K. XXXI, 1919, pp. 21–36 (24 figs.), and 1920, pp. 183–194 (17 figs.), most attention is given to the altar of Peter, among the sculptures of which the work of a number of individuals can be distinguished. There are also in the collection important paintings by Funhof, B. Beham, the elder Cranach, Elsheimer, Burgkmair, van der Goes, etc.

WORMS.—Gothic Clay Models.—In Z. Bild. K. XXXI, 1920, pp. 123–126 (6 figs.), E. Grill publishes some clay models now in the Paulus Museum at Worms that contribute toward the solution of problems connected with the making of clay models in the middle of the fifteenth century. Some of these were clearly made in Worms. The technique of the work indicates that the art was not dependent in style upon other arts, such as engraving, but was independent, a truly plastic art.

#### ATISTRIA

VIENNA.—Acquisitions of the Kunsthistorisches Museum.—Of the paintings recently added to the collection in the Kunsthistorisches Museum, Vienna, L. Baldass describes the most important in Z. Bild. K. XXXI, 1920, pp. 115-122 (7 figs.). The earliest is a little half figure of the Madonna by Hans Holbein. the Elder, which must have been painted about 1499 and shows a clinging to fifteenth century Gothic style. A portrait by Willem van den Broeck, dated 1564 and evidently representing himself, shows the influence of Florentine painting. Jan Brueghel, the Elder, is represented by a characteristic street scene, while a painting by Solomon van Ruysdael representing duck hunters (dated 1633) shows a complete subordination of the genre element to the landscape. Likewise, in Jan Steen's Nine-pin Players the principal interest is in the interpretation of the landscape and atmospheric effect. The Interior of a Peasant's Cottage, dated 1647, belongs to the end of Adrien van Ostade's Rembrandt period. In a portrait of a woman by Gerard Terborch the influence of Velasquez is clearly visible. Finally there are two Venetian scenes by Antonio Canale.

#### DENMARK

COPENHAGEN.—Jean Fouquet.—In Z. Bild. K. XXXI, 1920, pp. 195–206 (9 figs.), F. Winkler publishes five miniatures by Fouquet in the Hours of the Cardinal Karl von Bourbon in Copenhagen and analyzes the characteristics of the artist, whose greatness lay in his consistent perception of realism and in his sharpness of eye and sureness of hand.

#### RUSSIA

RIGA.—A Triptych by Jacob of Utrecht.—In Z. Bild. K. XXXI, 1920, pp. 74-76 (2 figs.), K. Schaefer publishes a beautiful triptych in the Riga museum signed by Jacob of Utrecht and dated 1520. The central subject is the Madonna enthroned; in the wings are the donors, the alderman H. Kerckring of Lübeck and his wife; and on the outside of the wings are two saints. The style is that of a tasteful, clever eclectic with closest likeness to Quentin Massys in his late work.

# GREAT BRITAIN

GRASMERE.—Wood Carvings of the Sixteenth Century.—In Proc. Soc. Ant. XXXI, 1919, pp. 16–19 (6 figs.) H. S. Cowper describes several panels in a private collection in Grasmere, including a representation of Adam, Eve and the Serpent by an Italian artist of the first half of the sixteenth century, and five panels representing the story of the Prodigal Son, apparently German work of the sixteenth century.

LONDON.—Alabaster Tables.—In *Proc. Soc. Ant.* XXXI, 1919, pp. 57-61 (6 figs.) W. L. Hildburgh discusses six alabaster tables found in Spain, but apparently of English origin, and to be dated in the fifteenth century. The reliefs represent (1) the Crucifixion; (2) the Trinity; (3) and (4) the Coronation of the Virgin; (5) the Adoration of the Magi; (6) the head of St. John.

An Armorial Slab from Budrun.—In Proc. Soc. Ant. XXXI, 1919, pp. 5-16 (5 figs.) G. F. Hill discusses an armorial slab inscribed with the name of Fray Francesco de Boxols, at one time captain of the castle of St. Peter at

Budrun. He compares it with other examples of Italian decorative sculpture of the fifteenth century.

A Portrait by Lotto.—To the long list of portraits by Lorenzo Lotto another is added in *Burl. Mag.* XXXVII, 1920, p. 39 (pl.). The picture, which is owned by Mr. Arthur Ruck, represents the half-length figure of an old man, and, though unsigned, bears all the characteristics of Lotto's style, of about 1540.

An Ivory Pyxis.—In Mh. f. Kunstw. XIII, 1920, pp. 98–107 (5 figs.) S. Poglayen-Neuwall publishes an ivory pyxis in the Morgan collection of the South Kensington Museum with a representation of the miracle of the loaves and fishes: a combination of the blessing and the distribution of the bread. A very close parallel is offered by an ivory pyxis in the Livorno museum, so close that they must have had the same original provenance, which, apparently, is Egypt. The Morgan pyxis belongs to about 500 a.d.; the one at Livorno is somewhat earlier.

#### UNITED STATES

BOSTON.—Carel Fabritius.—In Z. Bild. K. XXI, 1920, pp. 72–73 (4 figs.), J. O. Kronig publishes detailed photographs of an equestrian portrait in the Boston Museum of Fine Arts to prove that his attribution of it some years ago to C. Fabritius was correct and that the recent argument of G. Glück (ibid., April—May, 1919) is in error in attributing the work to the school of Van Dyck and in identifying the rider with Halmale in Peter Fluys' painting of that subject in the Antwerp museum.

A Painting by Fiorenzo di Lorenzo.—A tempera painting of the Madonna and Child, with St. Jerome, has been acquired by the Boston Museum of Fine Arts, and is described by C. H. H(AWES) in B. Mus. F. A. XVIII, 1920, pp. 26–27 (2 figs.).

A Sung Statue.—In B. Mus. F. A. XVIII, 1920, pp. 34–37 (3 figs.) J. E. L(ODGE) discusses a large wooden statue recently acquired by the Museum of Fine Arts. It is identified as a representation of Kwan-yin P'u-sa, and is attributed to a Chinese sculptor of the twelfth century.

NEW YORK.—Madonna with Saints.—In B. Metr. Mus. XV, 1920, pp. 137–139 (fig.), B. B. publishes the famous Madonna and Child with Saints by Girolamo dai Libri recently acquired by the Metropolitan Museum. The large painting was made originally for the church of San Leonardo near Verona and is especially interesting for its beautiful landscape. The Mantegna-like quality of the work suggests that it was done before 1526.

Near Eastern Objects.—In B. Metr. Mus. XV, 1920, pp. 197–202 J. B(RECK) describes recent accessions to the collections of Near Eastern Art in the Metropolitan Museum, including (1) a stone relief of the second century, from Afghanistan, representing the Bodhisattva Maitreya; (2) two stone figures of Buddha from the monastery of Nālandā in Maghadha, dating from the Pāla dynasty (ninth to twelfth century); (3) six examples of lustre pottery. In the same article the acquisition of European textiles of various periods is reported.

A Chinese Relief of the Han Period.—The Metropolitan Museum of Art has acquired a stone slab carved in relief, originally a part of a tomb of the Han period. According to the importers, it comes from Ching Ping Hsien in Shantung, which was the site of an imperial tomb. The design in low relief

shows a pavilion of two stories, with several human and animal figures. (B. Metr. Mus. XV, 1920, pp. 249-250; fig.).

ST. LOUIS.—Chinese Paintings.—In the *Bulletin* of the City Art Museum of St. Louis, V, 1920, pp. 26–32 (3 figs.) is a description of a group of Chinese paintings of the Sung period owned by the Museum, with illustrations of examples attributed to Kuo Hsi, Hui Tsung, and Li Tang.

WORCESTER.—Spinello Aretino.—Two panels attributed to Spinello Aretino which have recently been acquired by Mr. F. C. Smith, Jr., are published by R. Wyer in Art in America, VIII, 1920, pp. 211–217 (2 figs.). Their closest parallel is found in Spinello's frescoes in the Palazzo Pubblico, Siena; so that they evidently belong to the artist's most distinctive period, 1408–1410, and they show the very best he did even then. They are predella panels with two scenes from the story of SSS. Cosmus and Damian.

# AMERICAN ARCHAEOLOGY

#### GENERAL AND MISCELLANEOUS

NEW YORK .- Recent Publications of the Heye Foundation .- Activity on the part of the Museum of the American Indian (Heve Foundation) has resulted in 1920 in the completion of Volumes 6 and 10, Indian Notes and Monographs. In Volume 10, Number 3, pp. 40-106 (31 pls.; 10 figs.) is 'Notes on the Bribri of Costa Rica,' by A. B. SKINNER. In this ethnological account of the Bribri Indians (Chibcha stock) on the Teliri River, the author makes a remark of significance to Central American archaeologists: that the gold pendants in the form of eagles, alligators and frogs found so commonly in burial sites of the region, are still known and cherished by the natives as amulets. The stone seats so abundant in Central American archaeology have likewise descended to the present time in the form of wooden benches, generally in the form of turtles; the latter provide another link between the past and present Chibcha culture of the isthmus. Number 4 of the same volume by the same author describes 'An Image and An Amulet of Nephrite from Costa Rica,' pp. 111-113 (2 pls.). Number 1, Volume 10, pp. 5-20 (3 pls., 3 figs.) describes 'A Stone Effigy Pipe from Kentucky,' by George H. Pepper. The same institution published some other papers in 1920. Chief among them are 'A Native Copper Celt from Ontario,' pp. 5-6 (pl.); 'Two Lenape Stone Masks from Pennsylvania and New Jersey,' pp. 5-7 (2 pls.); 'Two Antler Spoons from Ontario,' pp. 5-6 (pl.), all by A. B. SKINNER, and 'Sandals and Other Fabrics from Kentucky Caves,' pp. 5-20 (6 pls., 4 figs.), by W. C. ORCHARD.

PHILADELPHIA.—A Collection of Inca and Aztec Gold.—The Museum of the University of Pennsylvania has recently acquired two large collections of native American gold work. One, purchased in Paris in 1919, contains specimens from all the early gold-working peoples from Mexico to Peru; the other is a treasure excavated in 1920 in the mountains near Ayapel, Antiquoia, Colombia. This latter consists of three breastplates of thin beaten gold, 22 inches across, decorated in repoussé; five circular breastplates 10 to 13 inches in diameter; a girdle 3 feet long and 7 inches wide made up of 138 solid gold bars 4 inches long; eight fan-shaped nose-rings cast in solid gold; six staff heads; four bells (three of gold, one of copper) 2 inches high and an inch in diameter with

an opening at the side; sixteen solid gold nose or ear ornaments; nine strings of gold beads; eight plain gold bracelets; ten gold nose ornaments; twelve discs or bosses of plain gold; a funnel-shaped ornament 3 inches high and 2½ inches in diameter; a gold armband 3 inches broad; a helmet of plain gold; six sheets of very thin gold about 16 by 20 inches. This is the most important treasure found in South America since the Conquest. The collection from Paris consists of two female images of pure gold, 9 inches high, cast hollow (Quimbaya): two gold discs. 7\frac{1}{2} inches in diameter, decorated with a face below which are sun's rays; four undecorated cuffs of heavy beaten gold, of which two are 9 inches high and two 7 inches: six gold crowns from 1 to 4 inches wide: two curious symbolic figures, 7½ inches high and 4½ inches wide, of gold cast ½ inch thick (Chibcha): a bronze knife 5½ inches long with a serpent on top of the blade and a solid gold stork standing on the handle; eighteen personal charms or amulets (Central America): five ear ornaments: fourteen nose ornaments: seven figures of men from 2 to 3 inches high, also two of silver cast solid: three models of throwing sticks and five pins from 4 to 6 inches long cast in solid gold: three ornaments 6 inches long covered with discs; a flat key-pad with eight hooks (Chibcha); two hollow bracelets 3 inch in diameter; part of the mask of a human face with inlaid headband, eves and teeth, a turquoise at each corner of the mouth representing four teeth (Mexico); fourteen hollow gold beads, six capped cylinders and six ovoid beads (Peru). There are the following examples of Inca work: a death mask 6 by 8½ inches; three gold bells, one representing a dog-headed man sitting in a swing and holding a serpent in his mouth, another a grotesque animal sitting in a hoop of coiled wire, the third in the form of a very small owl; two gold images of men, one 11/4, the other  $2\frac{1}{2}$  inches high; three pairs of gold tweezers, one 3 inches long, the others 1 inch long; a gold cuff 5 by 7 inches; a gold-headed pencil and three bronze pins; a female idol of silver 9 inches high cast hollow; five male idols of silver 3 inches high cast solid; also a silver deer, and a silver plate 3 by 3½ inches. Of Central American gold there are: three conventionalized figures of men, one 3 inches high, the others 2 inches; three gold bells; seven gold frogs, five of them holding snakes' heads in their mouths; five gold birds 3 by 2½ inches; eleven gold discs 4 to 6 inches in diameter. There are the following objects of Aztec gold: two filigree rings, one of them a remarkable piece of work showing a man in profile seated in a framework wearing an elaborate headdress and other decorations; ten small bells; two figures of men cast in solid gold; a turtle cast hollow; and an eagle's head cast hollow. tion also contains the following pieces of Aztec jewelry: two necklaces of gold and highly polished green jade beads; a decorated jade bead 5 inches long by 1½ inches wide; an ear ornament, two birds' heads and six carved heads with headdresses and an elaborately carved human figure, all of jade; six squatting iade figures, 1½ to 3½ inches high; a death's head, a cylindrical bead and a lipplug of perfect crystal; and six jet lip-plugs. (W. C. FARABEE, Mus. J. XI, 1920, pp. 93-129; 22 figs.)

WASHINGTON.—Archaeology East of the Mississippi.—The Bureau of American Ethnology has recently published Bulletin 71, Native Cemeteries and Forms of Burial East of the Mississippi, pp. 1-160 (17 pls.). 1920. It is a report and description based upon historic sources giving, however, only general

conclusions as to the distribution of the types of burial.

Abh.: Abhandlungen. Allg. Ztg.: Münchener Allgemeine Zeitung. Alt. Or.: Der alte Orient. Am. Anthr.: American Anthropologist. Am. Archit.: American Architect. A.J.A.: American Journal of Archaeology. A.J. Num.: American Journal of Numismatics. A.J. Sem. Lang.: American Journal of Semitic Languages and Literature. Amid. Mon.: Ami des Monuments. Ant. Semitic Languages and Literature. Am a. Mon.: Ami des Montunents. Am. Denk.: Antike Denkmäler. Ann. Arch. Anth.: Annals of Archaeology and Anthropology. Ann. Scuol. It. At.: Annuario della r. Scuola Archeologica di Atene e delle Missioni Italiane in Oriente. Arch. Anz.: Archäologischer Anzeiger. 'Αρχ. Δελτ.: 'Αρχαιολογικὸν Δελτίον. 'Αρχ. 'Εφ.: 'Αρχαιολογικὸ 'Εφημερίs. Arch. Rec.: Architectural Record. Arch. Rel.: Archite für Religionswissenschaft. Arch. Miss.: Archives de Missions Scientifiques et Littéraires. Arch. Stor. Art.: Archivio Storico dell' Arte. Athen.: Athenaeum (of London). Ath. Mitt.: Mitteilungen d. d. Archaeol. Instituts, Athen. Abt.

Beitr. Assyr.: Beiträge zur Assyriologie. Ber. Kunsts.: Amtliche Berichte aus den Preuss. Kunstsammlungen. Berl. Akad.: Preussische Akademie der Wissenschaften zu Berlin. Berl. Phil. W.: Berliner Philologische Wochenschrift. Bibl. Stud.: Biblische Studien. Bibl. World: The Biblical World. B. Ac. Hist.: Boletin de la real Academia de la Historia. B. Soc. Esp.: Boletin de la Sociedad Española de Excursiones. Boll. Arte: Bollettino d'Arte. Boll. Num.: Bollettino Italiano di Numismatica. Bonn. Jb.: Bonner Jahrbücher: Jahrbücher des Vereins von Altertumsfreunden im Rheinlande. B.S.A.: Annual of the British School at Athens. B.S.R.: Papers of the British School at Rome. B. Arch. C. T.: Bulletin Archéologique du Comité des Travaux hist. et scient. B. Arch. M.: Bulletin Archéol. du Ministère. B.C.H.: Bulletin de Correspondance Hellénique. B. Cleve. Mus.: Bulletin of the Cleveland Museum of Art. B. Inst. Ég.: Bulletin de l'Institut Egyptien (Cairo). B. Metr. Mus.: Bulletin of the Metropolitan Museum of Art, New York. B. Mon.: Bulletin Monumental. B. Mus. Brux.: Bulletin des Musées Royaux des arts décoratifs et industriels à Bruxelles. B. Mus. F. A.: Museum of Fine Arts Bulletin, Boston. B. Num.: Bulletin de Numismatique. B. R. I. Des.: Bulletin of the Rhode Island School of Design. B. matique. B. R. I. Des.: Bulletin of the Rhode Island School of Design.

Soc. Anth.: Bulletin de la Société d'Anthropologie de Paris. B. Com. Rom.:
Bullettino d. Commissione Archeologica Comunale di Roma. B. Arch. Crist.:
Bullettino di Archeologia Cristiana. B. Pal. It.: Bulletin de la Italiana. Burl. Mag.: Burlington Magazine. B. Soc. Ant. Fr.: Bulletin de la Société des Antiquaires de France. Byz. Z.: Byzantinische Zeitschrift. Chron. Arts: Chronique des Arts. Cl. Phil.: Classical Philology. Cl. R.:

Classical Review. C. R. Acad. Insc.: Comptes Rendus de l'Académie des Inscriptions et Belles-Lettres. C.I.A.: Corpus Inscriptionum Atticarum. C.I.G.: Corpus Inscriptionum Graecarum. C.I.L.: Corpus Inscriptionum Latinarum. C.I.S.: Corpus Inscriptionum Semiticarum. Cron. B. A.:

Cronaca delle Belle Arti.

Eph. Ep.: Ephemeris Epigraphica. Eph. Sem. Ep.: Ephemeris für Semitische Epigraphik. Exp. Times: The Expository Times.

\* Gaz. B.-A.: Gazette des Beaux-Arts. G.D.I.: Sammlung der griechischen

Dialekt-Inschriften.

I.G.: Inscriptiones Graecae (for contents and numbering of volumes, cf. A.J.A. IX, 1905, pp. 96–97). I.G.A.: Inscriptiones Graecae Antiquissimae, ed. Roehl. I.G. Arg.: Inscriptiones Graecae Argolidis. I.G. Ins.: Inscriptiones Graecarum Insularum. I.G. Sept.: Inscriptiones Graeciae Septentrio-

nalis. I.G. Sic. It.: Inscriptiones Graecae Siciliae et Italiae.

Jb. Arch. I.: Jahrbuch d. d. Archäol. Instituts. Jb. Kl. Alt.: Neue Jahrbücher für das klassische Altertum, Geschichte und deutsche Litteratur und für Pädagogik. Jb. Kunsth. Samm.: Jahrbuch der Kunsthistorischen Sammlungen des allerhöchsten Kaiserhauses. Jb. Phil. Päd.: Neue Jahrbücher für Philologie und Pädagogik (Fleckeisen's Jahrbücher). Jb. Preuss. Kunsts.: Jahrbuch d. Preuss. Kunstsammlungen, Jh. Oest. Arch. I.: Jahreshefte des oesterreichischen Archäologischen Instituts. J. Asiat.: Journal Asiatique. J.A.O.S.: Journal of the American Oriental Society. J.B. Archaeol.: Journal of the British Archaeological Association. J. B. Archit.: Journal of the Royal Institute of British Architects. J. Bibl. Lit.: Journal of Biblical Literature. J. E. A.: Journal of Egyptian Archaeology. J. H. S.:

Journal of Hellenic Studies. J. Int. Arch. Num.: Διέθνης Ἐφημερὶς τῆς νομισματικῆς ἀρχαιολογίας, Journal international d'archéologie numismatique (Athens). J.R.S.: Journal of Roman Studies.

Kb. Gesammtver.: Korrespondenzblatt des Gesammtvereins der deutschen

Geschichts-und Altertumsvereine. Kunstchr.: Kunstchronik.

Mb. Num. Ges. Wien: Monatsblatt der Numismatischen Gesellschaft in ien. Mh. f. Kunstw.: Monatshefte für Kunstwissenschaft. Mél. Arch. Wien. Mh. f. Kunstw.: Monatshette tur Kunstwissenschaft. Mél. Hist.: Mélanges d'Archéologie et d'Histoire (of French School in Rome). Mél. Hist.: Mélanges d'Archéologie et d'Histoire (of French School in Rome). Mélanges d'Archéologie et d'Histoire (of French School in Rome). Hist.: Mélanges d'Archéologie et d'Histoire (of French School in Rome). Mél. Fac. Or.: Mélanges de la Faculté Orientale, Beirut. M. Inst. Gen.: Mémoires de l'Institut Genevois. M. Soc. Ant. Fr.: Mémoires de la Société des Antiquaires de France. M. Acc. Modena: Memorie della Regia Accademia di scienze, lettere ed arti in Modena. Mitt. Anth. Ges.: Mitteilungen der anthropologischen Gesellschaft in Wien. Mitt. C.-Comm.: Mitteilungen der Central-Commission für Erforschung und Erhaltung der Kunst-und historischen Denkmale. Mitt. Or. Ges.: Mitteilungen der deutschen Orient-Gesellschaft. Mitt. Pal. V.: Mitteilungen und Nachrichten des deutschen Pälestina Vereins. Mitt. Nassau: Mitteilungen des Vereins für nassauische Altertumskunde und Coeschichtsforschung. Mitt. Verderge. Ges.: Mitteilungen der vergergesisti. Geschichtsforschung. Mitt. Vorderas. Ges.: Mitteilungen der vorderasiatischen Gesellschaft. Mon. Ani.: Monumenti Antichi (of Accad. d. Lincei). schen Gesellschaft. Mon. Ant.: Monumenti Antichi (of Accad. d. Lincei). Mon Piot: Monuments et Mémoires pub. par l'Acad. des Inscriptions, etc. (Fondation Piot.) Mün. Akad.: Bayerische Akademie der Wissenschaften, München. Mün. Jb. Bild. K.: Münchner Jahrbuch der bildenden Kunst. Mus. J.: The Museum Journal of the University of Pennsylvania. N. D. Alt.: Nachrichten über deutsche Altertumskunde. Not. Scav.: Notizie degli Scavi di Antichitá. Num. Chron.: Numismatic Chronicle. Num. Z.: Numismatische Zeitschrift. N. Arch. Ven.: Nuovo Archivio Veneto. N. Bull. Arch. Crist.: Nuovo Bullettino di Archeologia cristiana. Or. Lit.: Orientalistische Literaturzeitung. Or. Lux: Ex Oriente Lux. Pal. Ex. Fund: Quarterly Statement of the Palestine Exploration Fund.

Πρακτικά: Πρακτικά της έν 'Αθήναις άρχαιολογικης έταιρείας. Proc. Soc. Ant.:

Proceedings of the Society of Antiquaries.

Rass. d'Arte: Rassegna d'Arte. R. Tr. Eg. Assyr.: Recueil de travaux relatifs à la philologie et à l'archéologie égyptiennes et assyriennes. Rend. Acc. Lincei: Rendiconti d. r. Accademia dei Lincei. Rep. f. K.: Repertorium Acc. Lincei: Rendiconti d. r. Accademia dei Lincei. Rep. J. K.: Repertorium für Kunstwissenschaft. R. Assoc. Barc.: Revista de la Associacion artistico-arqueologico Barcelonesa. R. Arch. Bibl. Mus.: Revista di Archivos Bibliotecas, y Museos. R. Arch.: Revue Archéologique. R. Art Anc. Mod.: Revue de l'Art ancien et moderne. R. Art Chrét.: Revue de l'Art Chrétien. R. Belge Num.: Revue Belge de Numismatique. R. Bibl.: Revue Biblique Internationale. R. Ép.: Revue Épigraphique. R. Ét. Anc.: Revue des Études Anciennes. R. Ét. Gr.: Revue des Études Grecques. R. Ét. J.: Revue des Études Juives. R. Hist. Rel.: Revue de l'Histoire des Religions. R. Num.: Revue Numismatique. R. Or. Lat.: Revue de l'Orient Latin. R. Sém.: Revue Sémitique. R. Suisse Num.: Revue Suisse de Numismatique. Rh. Mus.: Rheinisches Museum für Philologie, Neue Folge. R. Abruzz.: Rivista Abruzzesa di Scienze, Lettere ed Arte. R. Ital. Num.: Rivista Italiana Numismatica. R. Stor. Ant.: Rivista di Storia Antica. R. Stor. Calabr.: Rivista Storica Calabrese. R. Stor. Ital.: Rivista Storica Italiana. Röm.-Germ. Forsch.: Bericht über die Fortschritte der Römisch-Germanischen Forschung. Röm.-Germ. Kb.: Römisch-Germanisches Korrespondenzblatt. Röm. Mitt.: Mitteilungen d. d. Archäol. Instituts Röm. Abt. Röm. Quart.: Römische Quartalschrift für christliche Altertumskunde und für Kirchengeschichte.

Sächsische Gesellschaft (Leipsic). Sitzb.: Sitzungsberichte. Sächs. Ges.:

Sächs. Ges.: Sächsische Gesellschaft (Leipsic). Sitzb.: Sitzungsberichte. S. Bibl. Arch.: Society of Biblical Archaeology, Proceedings. W. kl. Phil.: Wochenschrift für klassische Philologie. Z. D. Pal. V.: Zeitschrift des Deutschen Palästina Vereins. Z. Aeg. Sp. Att.: Zeitschrift für Aegyptische Sprache und Altertumskunde. Z. Alttest. Wiss.: Zeitschrift für alttestamentliche Wissenschaft. Z. Assyr.: Zeitschrift für Assyriologie. Z. Bild. K.: Zeitschrift für Bildende Kunst. Z. Ethn.: Zeitschrift für Ethnologie. Z. Morgenl.: Wiener Zeitschrift für die Kunde des Morgenlands. Z. Morgenl. Ges.: Zeitschrift der deutschen Morgenländschen Gesellschaft. Z. Mün. Alt.: Zeitschrift des Münchener Alterthumsvergins. Z. Num.: Zeitschrift für Numismatik eins. Z. Num.: Zeitschrift für Numismatik.







CYRENAIC CYLIX FROM SARDIS: NEW YORK.

# TWO VASES FROM SARDIS

# [PLATE IV]

The two vases which are represented on Plate IV and Figure 2 are now in the Metropolitan Museum of Art, New York. They were found in fragments in a tomb at Sardis which was one of the richest in pottery that has yet been discovered there. Each vase has its special points of interest, and each, as I shall try to show, throws some light on the broader problems raised by the mass of vases and fragments recovered by the American Society for the Exploration of Sardis.

I shall begin with the vase (PLATE IV) which presents the simpler problem, so far as classification is concerned—a well preserved cylix of the class commonly called Cyrenaic. It is in all respects a typical example. The shape is the common one for the Cyrenaic drinking cup, with deep bowl and comparatively short stem. With the exception of the foot and a band on a level with the handles, it is covered with the characteristic white slip, over which the decoration is painted in black varnish of fairly good quality, with considerable use of purplish red as an overcolor. The scheme of the decoration, also, is a familiar one, with groups of fine and broad bands (the broad ones regularly with red overcolor) used to separate the more elaborate patterns, thin downward rays on the stem, two pomegranate patterns, a row of eggs. and a band of upward rays on the body of the bowl, an elaborate pomegranate net on the lip, and two large palmettes (incised and with red centres) placed on their sides about each handle. On the inside of the lip is an elaborate lotus and pomegranate pattern, and at the centre of the bowl is the usual medallion, surrounded by broad and narrow bands and a Z-pattern. the medallion is painted a Sphinx, seated to right, with recurved wings and with a scroll rising from her head. Between her legs is a bird facing right, and in front of her is another bird facing

<sup>&</sup>lt;sup>1</sup> The dimensions are: height, 12.3 cm.; diameter, 18.9 cm.

Red overcolor is used on the hair and the backs of the wings of the Sphinx, and on the wings of the birds.

All these details can be closely paralleled in other examples of the Cyrenaic class.<sup>1</sup> The most unusual is the pattern on the inside of the lip, which is somewhat more elaborate than is common, but is plainly developed from the lotus bud and the pomegranate. The Sphinx is a frequent element in the decoration of this class of vases, especially for the central medallion of a cylix.<sup>2</sup> The closest parallel that I have found is in the cylix Louvre E 664 (= Dugas 34), of which the central medallion is here re-



FIGURE 1.—SPHINX FROM CYRENAIC CYLIX IN THE LOUVEE.

produced (Fig. 1) from Arch. Zeit. 1881, pl. XIII, No. 6.

It is not my purpose here to enter into a detailed discussion of the controversy concerning the place of manufacture of the Cyrenaic group of vases. The theory that they were made at Cyrene, first suggested by Loeschcke and Puchstein. was very generally accepted up to the time of the excavations of the British School on the site of the temple of Artemis Orthia at Sparta in 1906 and the following years.3 Those excava-

tions vielded many vases and fragments similar in technique and style to the Cyrenaic group already recognized, and—what is more important—the stratification of the site made it possible to distinguish earlier and later stages in the development of the ware. The

For the decorative patterns on Cyrenaic vases, cf. R. Arch. IX, 1907, pp. 378-386.

<sup>2</sup> Compare in the useful catalogue of Cyrenaic vases compiled by Dugas (R. Arch. X, 1907, pp. 48-58), Nos. 24, 34, 39, 53, 59?, 85. All of these are cylices except No. 24. Cf. also B.S.A. XIII, p. 134, fig. 10 c (fragment from Sparta) and XIV, p. 38, fig. 5 (oenochoe from Sparta).

<sup>3</sup> For the older literature on Cyrenaic vases, cf. B.C.H. XVII, 1893, p. 226, note 1; R. Arch. IX, 1907, p. 377, note 3. For more recent discussions, besides those already mentioned in the previous notes, reference may be made to Prinz, Funde aus Naukratis, pp. 64-67; J.H.S. XXVIII, 1908, pp. 175-179; R. Arch. XXI, 1913, pp. 418 f.

<sup>4</sup> On the pottery found at Sparta, cf. Droop's reports in B.S.A. XIII,

pp. 118-136; XIV, pp. 30-47; XV, pp. 23-39.

amount of this pottery is so great that it is obviously of local origin. and the excavators proposed the name "Laconian" for the whole class, and worked out a system of classification into six chronological groups (Laconian I, II, III, etc.), which is entirely acceptable so far as the vases from Sparta are concerned. In regard to the "exported" vases, however, that is, vases found outside of Laconia, many, apparently, find an exclusive Laconian theory too narrow and feel that the arguments advanced for Cyrenaic origin for a part, at least, of the vases still have weight. arguments are, in general, the amount of Cyrenaic ware found at Naucratis, for which Cyrene seems a more likely place of origin than Sparta; the subject and the details of the Arcesilas cylix.2 which suggest an intimate knowledge of life at Cyrene hard to attribute to a Laconian painter; and the subject of a cylix in the British Museum which has been plausibly identified by Studniczka as the nymph Cyrene.<sup>3</sup> To these may now be added the subject of a fragmentary cylix in the Museum of Tarentum, which seems to represent the nymph Cyrene struggling with the lion.4 The fragments of Cyrenaic vases discovered at Cyrene itself during the excavations conducted by the Archaeological Institute in 1910-115 might also be cited in this connection, but these were so few that little weight can be given to their evidence. More extensive exploration of the site no doubt will some day bring more conclusive evidence. For the present we must, I think, conclude that Cyrenaic ware was certainly manufactured in Laconia, and probably also in Cyrene.

So far as the cylix from Sardis is concerned, the controversy as to the origin of the Cyrenaic vases is of secondary importance. In any case the vase before us is an imported vase of Greek manu-

 $<sup>^1</sup>$  Cf. for a brief statement of the classification, B.S.A. XIV, pp. 46 f.; and for an attempt to apply it to the "exported" vases, J.H.S. XXX, 1910, pp. 1–34.

<sup>&</sup>lt;sup>2</sup> In the Bibliothèque Nationale, Paris; cf. De Ridder, Cat. des Vases Peints de la Bibl. Nat. I, p. 98, No. 189. In Dugas's catalogue, No. 12.

<sup>&</sup>lt;sup>3</sup> British Museum B 4; cf. Walters, Cat. of Greek and Roman Vases, II, p. 50; Studniczka, Kyrene, pp. 17 ff. In Dugas's catalogue, No. 23.

<sup>&</sup>lt;sup>4</sup> Cf. Dugas, R. Arch. XX, 1912, pp. 96-98. In this article, which is devoted especially to a description of Cyrenaic vases in the Museum at Tarentum, Dugas has summarized very clearly (pp. 98-102) the arguments pro and con in the Laconia—Cyrene controversy. To his conclusion, that the answer to the question, "Cyrene or Sparta?" is really "Cyrene and Sparta," I heartily subscribe.

<sup>&</sup>lt;sup>5</sup> Cf. Hoppin in Bull. Arch. Inst. II, p. 165.

facture, which points to trade relations with the west, presumably through the medium of one of the Ionic cities. A more important question is the date to be assigned, inside the group, to this particular example. The elements to be considered in such an attempt at dating have been pointed out by Droop. The most important are the amount and the quality of the white slip, which in early examples covers the whole vase and is thick and smooth. but later degenerates in quality and is gradually abandoned: the use of purple for parts of the decorative patterns, such as the crossbar of the lotus; the shape of the foot of the cylix, which at first has a sharp edge and later becomes thick and rounded: and the thickness of the rim, where "a greater thickness than .004 m. is likely, other things being equal, to indicate a date not earlier than the middle of Laconian IV" (550-500 B.c.). On the basis of these criteria, the cylix from Sardis must be placed in Laconian III (600-550) or Laconian IV (550-500), and on the whole the earlier period seems to me the more probable. The slip is of good quality and covers almost the whole vase; the foot has a notably sharp edge: and the thickness of the rim is not quite .003 m. Purple, to be sure, is not used for any part of the decorative patterns, but it is quite extensively used for the broad bands.

The dating 600–550 B.C. agrees well with the evidence of two other imported vases from the same tomb. One is an Attic vase of very early black-figured style, the other a Corinthian *olpe* of rather careless execution. The three vases together serve to date the comparatively large amount of native pottery found in the tomb and so give us a fixed point in the chronology of Sardian vases.

The problem presented by the second vase (Fig. 2) is of a different sort. This is a pitcher of unusual shape, characterized by a broad, wide spout with a strainer at the base, formed by perforating the wall of the vase at this point with a series of comparatively large holes, irregularly distributed. The vase has a foot in the shape of a truncated cone, a broad, thick handle placed on one side, and a rather low, offset rim.<sup>2</sup> The outside is decorated in the technique which is conveniently called "marbling," i.e., the application, over a white slip, of black to brown varnish in a manner which produces irregular waves or zigzags,

<sup>&</sup>lt;sup>1</sup> J.H.S. XXX, 1910, pp. 2-5.

<sup>&</sup>lt;sup>2</sup> The dimensions are: height, 13 cm.; height with handle, 16.3 cm.; diameter, 11.9 cm.; length of spout, 6.8 cm.

suggesting an imitation of work in glass. The inside is painted in what may be called "streaked technique," the application of a lustrous varnish in such a way that, although the surface is covered, the effect is streaked and uneven.

That this vase is a local product there can be little doubt. The high, conical foot is a favorite with the potters of Sardis,<sup>1</sup>



FIGURE 2.—VASE FROM SARDIS: NEW YORK.

and marbling and the streaked technique are characteristic of large numbers of Sardian vases of the seventh and the sixth centuries, B.C.<sup>2</sup> But the shape is unusual, and a search for similar forms leads to interesting results. The fundamental idea of a spouted vase with a strainer is, of course, no novelty in the sixth century, for it can be traced back to early post-Mycenaean times at least. I have noted an unpainted specimen from Tiryns<sup>3</sup> and

<sup>&</sup>lt;sup>1</sup> Cf. A.J.A. XVIII, 1914, p. 433.

<sup>&</sup>lt;sup>2</sup> *Ibid.* pp. 434 f.

<sup>&</sup>lt;sup>3</sup> Schliemann, Tiryns, p. 120, fig. 30.

a number of examples from Cyprus.<sup>1</sup> But none of these vases presents close similarities to the vase from Sardis. All are characterized by narrow necks, small mouths, and much narrower bodies than our vase. In fact, the closest analogies that I have so far been able to find are in a series of spouted vases discovered in 1900 by the brothers Körte at Gordium. In the tumulus numbered III by the excavators, which is dated about 700 B.C., no less than fifteen such vases were found.<sup>2</sup> They show slight



FIGURE 3.—VASE FROM GORDIUM.

variations in form; eight are painted in dull colors with geometric patterns; seven are unpainted; and two have a perforated top instead of an open mouth. But all exhibit the long spout with the sieve at its base (cf. Fig. 3, from *Gordion*, pl. III). The

<sup>2</sup> Cf. G. and A. Körte, Gordion: Ergebnisse der Ausgrabungen im Jahre 1900, pp. 55-59, 62-64, 83 f.

<sup>1</sup> Cf. British Museum C 703, Catalogue of Greek and Roman Vases I, pt. II, p. 133, fig. 262, and Excavations in Cyprus, p. 75, fig. 134 (sub-Mycenaean); Myres and Ohnefalsch-Richter, Cat. of the Cyprus Museum, p. 69, No. 1092, and pl. IV. (Graeco-Phoenician white ware); Louvre A 97, Pottier, Vases Ant. du Louvre, I, p. 6, pl. 7; Dümmler, Ath. Mitt. XIII, 1888, p. 290, fig. 1.

discoverers argue that these vessels were made for dipping from a larger vase and serving some liquid containing solid ingredients, and they suggest, very plausibly, that this was barley-beer, such as Xenophon found in use among the Armenians.<sup>1</sup> There can be no doubt that these vases from Gordium are the work of native Phrygian potters. The decoration is similar to that of other vases found on the site, and the shape appears to have developed from earlier Phrygian spouted vases, examples of which (one with a sieve) were found in the much earlier tumulus of Bos-öjük.<sup>2</sup>

The shape of the vase from Sardis, therefore, points definitely towards the east and suggests that in the pottery from this site we must expect to find influences from the east as well as from the west. Such influences are difficult to prove, because the development of the potter's art in central Asia Minor is still obscure, and so clear a case as that of the spouted vase is very helpful.

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<sup>&</sup>lt;sup>1</sup> Xen. Anab. IV, 5, 26 f.

<sup>&</sup>lt;sup>2</sup> Cf. Ath. Mitt. XXIV, 1899, p. 33, with pl. III, Nos. 16 and 25.

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# ATTIC BUILDING ACCOUNTS

# IV. THE STATUE OF ATHENA PROMACHOS1

The earliest of the extant building accounts from the Acropolis at Athens is that known as  $I.\,G.\,I.\,284-288$ , formerly supposed to be the record of the Parthenon, or possibly of the Odeum.<sup>2</sup> This now appears on three fragments of marble, herein designated as A  $(I.\,G.\,I.\,284-285)$ , B (286-287), and C (288); though at first published separately, they were soon identified by Kirchhoff as belonging to a single construction. While this unity of subject is now generally accepted, it has not been so certain that all belong to a single stele,<sup>3</sup> nor is their order indisputable. Kirchhoff placed C last, because of a blank space of 0.15 m. at the bottom;<sup>4</sup> but there would still remain two possible orders, ABC or BAC.

The necessity for a restudy of this inscription becomes more pronounced when we observe that there exist at least three other fragments which may be assigned to it, on the basis of uniformity in shape and size of letters and spacing of lines, and the characteristic horizontal strokes separating the sums of money. These may be known as D (I. G. I, 545),  $^{5}$  E (545 a), and F (unpublished).

<sup>1</sup> Three earlier articles of this series were published in this JOURNAL, Vol. XVII, 1913, pp. 53–80, 242–265, 371–398, pls. II–IV. In the fifth and concluding article I shall present some important modifications of the results which I obtained eight years ago.

<sup>2</sup> Kirchhoff, *Memorie dell' Inst.* 1865, pp. 129–142; Michaelis, *Parthenon*, pp. 287–288; Kirchhoff in the *Corpus* withdrew the attribution to the Parthenon.

<sup>3</sup> Kirchhoff evidently assumed that they belonged to a single stone; Larfeld (*Handbuch d. att. Inschriften*, p. 45) suggests that perhaps they are from different blocks; Cavaignac (*Études sur l'Histoire Financière d'Athènes*, p. xlviii) says that "these fragments certainly belong to two different stones."

<sup>4</sup> The original bottom of the stele is not preserved.

 $^5$  I now learn that Bannier (Berl. Phil. W. 1916, p. 160) has erroneously assigned I. G. I, 545 to the much later I. G. I, 319, referring to the Theseum (R. Ét. Gr. 1916, p. 439).

 $^6$  Inv. 1335 of the Acropolis; 0.075 m. high, 0.075 m. wide, and 0.045 m. thick, with the left edge preserved, elsewhere broken; now in the Epigraphical Museum, where it was once cemented to  $\mathsf{E}$ .

The reason for which some have assumed that A, B, and C belong to different stelae is the existence of a peculiar fracture appearing on the bottom of A and the top of B, where they were split along a mica vein running almost horizontally across the stele, sloping down toward the left at a rate of 0.0025 m. in 0.11 m., and up toward the back at a rate of 0.01 m. in 0.11 m. The split surface is so clean that at first glance it was taken for a worked joint, and the pieces were thought to be separate blocks. But since the same fracture appears on both A and B, proving that these two fragments belong to a single stone, there remains no ground for assigning the fragments to more than one stele.

Fragment A preserves the right edge of the stele.<sup>2</sup> though perhaps not the right edge of the inscription, for an anathyrosis, 0.06 m, wide, seems to indicate that it was adjoined by another stele. like the Erechtheum accounts of 409/408 B.C. It now contains twelve lines (numbered 1-12), of which three are blank (ll. 4, 7, 11). Fragment B, broken on all sides, cannot be placed directly under A. in spite of the similarity of the split surface, because it would be physically impossible to space the lines evenly across the fracture, or to align the left edges of the lines. Moving B to the left, following the given slope of the horizontal fracture, a width of about 0.57 m. would be required to give a drop of one line (0.0135 m.); it is evident that we are concerned with two separate item columns, and that the topmost extant line of B must be numbered 14, counting from the top of A. Fragment B in turn contains nineteen lines (ll. 14-32), of which five are blank in the portion preserved (ll. 16, 21, 23, 29, 30).

Michaelis had suggested that the T in the last line of B might be combined with the T in the first line of C to form the word  $\dot{\epsilon}\pi\iota\sigma]\tau[\dot{a}]\tau[a\iota;$  this suggestion is now confirmed by the fact that the fractures join accurately in such a way that B contains the second, and C the first T, of  $[\dot{\epsilon}\pi\iota\sigma]\tau[\dot{a}]\tau[a\iota]$ . Fragment C therefore continues B, and its twenty-two extant lines may be numbered 32–53, of which four are blank (ll. 38, 40, 46, 48). Below the last line appears, as we noted, a blank space of 0.15 m., extending to the present broken bottom. The total height of the three com-

<sup>&</sup>lt;sup>1</sup> Kirchhoff stated that the bottom of A seemed to be cut; he expressed a similar doubt with regard to the top of B (*Corpus*).

<sup>&</sup>lt;sup>2</sup> Kirchhoff (*Memorie*, p. 130) and Michaelis (*Parthenon*, p. 287) state that it is broken on all sides; Kirchhoff (*Corpus*) later implied, and Bannier (*Rhein. Mus.* 1906, p. 218) stated, that the right edge was preserved.

bined fragments is 0.86 m. Though the order of the three fragments from top to bottom is ABC, yet, on account of the arrangement in two columns, we must read them in the order BCA.

Turning to the three new fragments, we observe that D likewise forms the end of a column, with 0.185 m, of blank space below the last line, a fact which associates it with C. Furthermore, in lines 43 and 51 of C (the third and eleventh above the bottom). the restoration proposed below leaves two or three empty letter spaces at the beginning: this circumstance is explained by D. where in the third and eleventh lines above the bottom the sums of money are so long that they overlap the space assigned to the item column. And the single letters remaining in the various lines of D may be satisfactorily restored to fit the items of C. though the two fragments are actually separated by a gap of 0.10 m. Fragment D, therefore, contains parts of lines 43-53 of the inscription. Now the left edge of D extends 0.035 m, to the left of the money column and is there broken off; but E and F show a finished left edge only 0.006 m. to the left of the money column. We are, therefore, to assume that the stele contained three double columns, and that B+C+D formed the central column, while E and F come either from the first column of the stele or from the first column of a second stele which adjoined the anathyrosis on A. It seems better to assign E and F to the first column of this stele, since as yet we have no evidence that the stone at the right of A was part of the same inscription. The two pieces contain no evidence as to their position in the column, but they fit together, F above E.1 It is impossible to number the lines with relation to the four larger fragments.

The customary subdivision of the columns into separate money and item columns obtains also in the present example, and forms the basis for the estimate of the total width of the stele. The width of the last item column (on A), restoring the missing letters, was 0.285 m. (measured from the right edge of the stele); the money column on D is 0.08 m. wide; we may assume that the width of any double column was about 0.365 m. Three double columns give a total width of about 1.10 m. The thickness of the stone, as given by B, is 0.253 m. The height, as determined from the number of lines required for the restoration, was greater than 1.15 m.

The relation of the sums to the entries requires special notice.

<sup>&</sup>lt;sup>1</sup> Though I found them separate, they had formerly been cemented together.

In fragment A the money column must have been placed at the left of the item column, since the latter is at the right edge of the stele. In B we seem at first glance to have the opposite arrangement, with the sums at the right of the entries. But closer examination reveals the fact that the items and the sums of money do not correspond. In lines 19–20 the total of wages for this year would be but slightly more than 150 drachmae; and in lines 25–27 appears a single large sum which is opposite both the entry is  $\pi o \iota \kappa \iota \lambda \iota a \nu$  and the total expenditure for the year. These sums cannot belong to the items on B, and must, therefore, be connected with other items, now lost, at the right, in direct continuation of A; the sums for the items mentioned on B were actually at the left. This is now proved by the junction of D to C, and by the fact that on E+F the sums of money begin at the left edge of the stele.

The accounts are arranged year by year, dated by means of the annual epistatae and their secretary, while at the end of each account appears the running number of the year since the beginning of the work. Since a complete year (on B+C+D) occupied only twenty-three lines, with a spacing of 0.0135 m., and since the total number of lines was considerably greater than fiftythree, we must assume that there were at least three and possibly four years in each column. The only numeral now preserved is [σηδ]οον in Column III, line 6.2 The space below this (corresponding to forty-seven lines of Column II) would be exactly filled by the accounts of two years, if the work lasted so long: only the beginning of the ninth account is preserved (ll. 8-12). Above fragment A. in Column III, must have appeared also the seventh account, since in the last line of Column II there are only six letter spaces for the numeral, requiring [hέκτ]ον. Each of Columns I and II, therefore, contained the accounts of three vears.

The relative order of these six fragments is now fixed. We should read the text, with restorations, as follows.

<sup>&</sup>lt;sup>1</sup> Kirchhoff (*Memorie*, pp. 137–140) calculated the amounts of the expenses on this principle; Michaelis (*Parthenon*, p. 287) compared this peculiarity with the quota lists of 454/3; cf. Bannier, *Rhein. Mus.* 1906, pp. 218–219; with this I formerly agreed (*A. J. A.* 1913, p. 59 n. 1), before I had made a study of the fragment.

<sup>&</sup>lt;sup>2</sup> See the commentary on this line.

<sup>&</sup>lt;sup>3</sup> See the commentary on this line.

```
Column I. fragments F + E (11 lines):
       ΔГН
        MMX....
        ΔΔΔΕΙΙΙΙ
    5
        AAPINA
        PEFFIL
        H \square \Lambda \Lambda \Lambda \Lambda \square H H
        MMMXXXX
  10 FHHHDH
        PXHHHD ...
Column II, ll. 14-53, fragments B+C+D:
                               [? 'Ανελόσαμεν τοι κον οι
   15
                               [ · · · · · · · · · · · · ἐς οἰκο]δομίαν
                               [Ka · · ·
                               [άνθρακες καὶ χσύλα κ]αύσιμα
                               [μισθοὶ καθεμέραν μισ]θοὶ κατα
   20
                               [\mu \acute{\epsilon} \nu \iota \alpha \cdots \dot{\alpha}] \pi \acute{o} \pi \alpha \chi s
                               [μισθοὶ ἐπιστάτεσι κ]αὶ γρα[μμ]
                               [ατει έν τούτοι έτει]
                               [άργύριον ἄσεμον ές] ποικιλί
                               [αν το . . . .
   25
                               [κεφάλαιον ἀναλόματ]ος
                               [περιεγένετο το λέμμ]ατος
                               [κατὰ τὸ πέμπτον ἔτος]
   30 -
             ['E\pi i \ \tau \hat{\epsilon} s \ d\rho \chi \hat{\epsilon} s \ h \hat{\epsilon} i \cdots \cdots : \dot{\epsilon} \gamma \rho \alpha \mu \mu ] \dot{\alpha} \tau \epsilon v [\epsilon]
                           [λέμματα παρὰ κολα]κρετ[ον]
                               [λέμμα περιγενό]μενο[ν
   35
                               [έκ το προτέρο έν]ιαυτο
                               [.....]ρα
                               [ \dots \dots ]
                               [.... τάλ]αντα: ΓΤΤ
```

```
40
                             [? 'Ανελόσαμε]ν τοι έργο[ι]
                             [ · · · · · · ές οἰκ]οδομίαν κα[ · · ·
            ....ΔΔΔΓΙ
                                [άνθρακες κ]αὶ χσύλα κα[ύσιμα]
            HH F1 . . .
                             μ[ισθοὶ καθεμέ]ραν μισθοὶ κ[αταμένια]
                             \tau \alpha [\cdots \alpha \dot{\alpha} \pi \dot{\alpha} \pi \dot{\alpha} \pi \dot{\alpha} \chi \zeta]
  45
            . . AP F
                             μ[όλυβδος ?]
            . ΗΗΝΔΔΔ
                             ά[ργύριον ἄσεμ]ον ές ποι[κιλίαν]
            . HII
                             \tau \hat{o}[\cdots \cdots
            ХРНННН
                             μ[ισθοὶ ἐπιστ]άτεσι κα[ὶ γραμμα]
   50
            PAFFII
                             τ[ει έν τούτοι] έτει
            МХХННДГН
                                [κεφάλαιον] ἀναλόματ[os]
            π[εριεγένετ]ο το λέμματ[os]
            .. |
                             κ[ατὰ τὸ hέκτ]ον έτος
Column III, ll. 1-28, fragments A+B:
                             [μισθοὶ ἐπιστάτε]σι καὶ γρ[α]
                             [μματει | ἐν τούτ]ο[ι] ἔτει
                             [κεφάλαιον άν]αλόματος
    5
                             [περιεγένετ]ο το λέμματος
                              [κατὰ τὸ ὄγδ]οον ἔτος
             ['E\piι τες άρχες hει · · · · · ]s: εγραμμάτενε
                             .... ν: ἐπιστάται ΄
   10
                             [λέμματα πα]ρὰ κολακρετον
                              [λ εμμα περιγ] εν[όμεν] ον: έ[κ τ ο]
                             [προτέρο ἐνιαυτô]
             XH
   15
             HH
             ΔΓ
   20
```

25 M H Δ X

I add a few comments on the restorations which differ from those finally published by Kirchhoff (I. G. I, 284–288, 545):

### Column II:

L. 14— $\delta$ νεμάτον or μισθομάτον τοι ἔργ]οι, Bannier (*Rhein. Mus.* 1906, p. 218); I have suggested that it is rather the heading for the expenses.

Ll. 15-16—see line 42.

L. 17— $\alpha\nu\theta\rho\alpha\kappa\epsilon_5$ ; charcoal appears together with firewood in *I. G.* I, 319, line 14, and exactly fills the space here.

I.l. 19–20—καθ'  $h \epsilon \mu \dot{\epsilon} \rho a \nu \mu \iota \sigma ]\theta o \dot{\epsilon} \kappa a \tau \dot{a} [\tau \dot{a} \epsilon \dot{\epsilon} \rho \epsilon \mu \dot{\epsilon} \nu a \dot{a}] \pi \dot{\sigma} \pi a \chi s$ , Kirchhoff; cf. Meisterhans (*Grammatik*<sup>3</sup>, p. 148), Herwerden (*Lexicon*, s.v.  $\dot{a}\pi \dot{\sigma}\pi a \dot{\xi}$ ), and Bannier (*loc.cit.*); but it does not fit the space.

Ll. 22-23—see lines 1-2; Michaelis suggested κεφάλαιον ζοιγρά φοις.

Ll. 24-25—see lines 47-48; Michaelis suggested κεφάλαιον] ποικιλ[ται̂ς.

L. 29—no space is left for this line in the Corpus;  $\pi \epsilon \mu \pi \tau \sigma \nu$  restored for reasons given below (line 53).

L. 34—Kirchhoff read the four extant letters γενο.

Ll. 37–39—Pittakys (' $E\phi$  -' $A\rho\chi$  · 1859, No. 3481) represented a second  $\triangle$  in line 37; Michaelis and Cavaignac (*loc. cit.* p. 75) state that these (31) 21 talents are receipts, but since sums of money would hardly be mingled with the items, it seems more probable that these are the weights of some superfluous material, such as metal, which was sold.

L. 43—see line 17; the indention of the item column by three spaces is required by fragment D.

L.  $45 - \alpha \pi \delta \tau \alpha \chi \sigma[\iota \nu]$ , Kirchhoff (Memorie, p. 139).

L. 47—I shall attempt later to justify this restoration of the words  $a \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \circ v$ .

L. 51—the indention of the item column by two spaces is required by fragment D.

L. 53—fragment C almost immediately precedes A, of the eighth year; and there are only six spaces for the numeral, so that hέβδομον, πέμπτον, etc. are excluded. Köhler suggested that the first letter was B.

#### Column III:

L. 1— ${\mid \mathsf{KA} \mid \mathsf{\Gamma}}$ , Kirchhoff (Memorie, p. 130), evidently a typographical error (Pittakys, Έ $\phi$  · Άρχ · 1860, No. 4087, had  ${\mid \mathsf{KA} \mid \mathsf{\Lambda}}$ ); because of it Michaelis restored σι καὶ  $\pi[οικιλ··;$  Kirchhoff later corrected it to ἐπιστάπε]σι καὶ  $\gamma··;$  Bannier suggests λέμμα τοῖς ἐπιστάπε]σι κα···· ἔτει (Rhein. Mus. 1906, p. 218).

L. 2—Pittakys did not see these erased letters; Köhler read merely TE (Corpus); the erasure seems to imply that this was only a partial payment of the salaries, or that it included part of the amount due the preceding year.

L. 6—OON, Pittakys, and Kirchhoff restored ὄγδ]οον, which was accepted by Michaelis; later Köhler read merely ON, and Kirchhoff restored κατὰ τὸ ···· Ιον ἔτος; the curve of the first O actually appears.

L. 8—one of the formulae suggested by Kirchhoff (*Memorie*, p. 134), except that there is not space (as we learn from fragment D) for the number of the

άρχε.

L. 9—probably three epistatae were named; Bannier supposes that the epistatae were not named, and that they were permanent (*Rhein. Mus.* 1906, p. 217).

L. 10—the plural λέμματα restored to fill the space.

Ll. 12-13—the formula restored by Bannier (Rhein, Mus. 1906, p. 217 n. 3), except that I add \frac{2}{4}ua to fill the space.

Since 1873, when the attribution to the Parthenon was definitely abandoned by Kirchhoff, there has been no attempt to identify the construction to which the inscription refers. In the absence of the main prescript, our only evidence is the date as determined from the forms of the letters, the location as implied or suggested by the place of discovery, the estimated duration and cost of the work, and various hints afforded by the items of expenditure.

In the text, the absence of allusions to particular parts of a building, or to processes of construction, is particularly noteworthy; we find merely the general expression ές οἰκοδομίαν, "for the erecting," which evidently formed a very small part of the expenditure. The only other items which appeared in the fifth and sixth years, besides salaries and wages, are peculiarly significant. One of these items, apparently an annual entry, appears in these two years (Col. II, ll. 17, 43) as [......  $\kappa$ ]αίσιμα, or  $[\cdot \cdot \cdot \cdot \cdot \cdot \kappa]$ αὶ χσύλα κα $[i\sigma \iota \mu \alpha]$ ; both phrases are the same, and I have suggested that the first eight spaces were filled by the single word ἄνθρακες, on the analogy of I. G. I, 319, line 14 (χσύλα καὶ ἄνθρακες τοι μολύβδοι). In this other inscription the charcoal and firewood are recorded as having been bought for the melting of the metal for casting the accessories of the bronze statues in the Hephaesteum. It is tempting to assume that the fuel was intended also in our own case for the casting of a bronze statue. Then it would be possible to explain another item which appears in these two years (Col. II, ll. 24-25 and 47-48):  $[ \cdots \cdots \cdots ]$  ποικιλί $[ αν \cdots \cdots$  or  $\dot{α}[ \cdots \cdots ]$  ον ές ποι[κιλίαν] το [ · · · · · respectively. It obviously relates to the purchase of some material for use in decoration. For work in bronze such an accessory material would naturally be silver, the decoration  $(\pi o \iota \kappa \iota \lambda \iota a)$  then being in the form of chasing or inlaying. This interpretation seems to be confirmed by the fact that the space would be exactly filled by the two words  $\dot{a}[\rho \gamma \iota \rho \iota \rho \nu a \sigma \epsilon \mu] o \nu$ .

A bronze statue which took at least nine years to build must have been of colossal size. Among bronze statues, it is recorded that the Colossus of Rhodes by Chares required twelve years for its construction, the Mercury by Zenodorus ten years, and the two comparatively small cult statues by Alcamenes in the Hephaesteum at least five years.

It is possible to form an approximate estimate of the expenses for the sixth year, by filling out the gaps in the sums of money, as follows:

(928) for building (remainder from total given below).

 $385\frac{1}{6}$  for fuel (minimum allowance).

7700 for wages (the other possibility, 3700, is too small).

76 for lead (? or 36, 126, or 166).

382½ for silver (minimum allowance).

 $1963\frac{1}{3}$  for salaries (amount preserved).

 $11434\frac{5}{6}$  total expenditure.

 $782\frac{1}{6}$  surplus (amount preserved).

12217 total receipts (amount preserved).

The sums for the ninth year seem to have been of similar amounts; the few traces preserved on fragment B are of small quantities (1100+,215+, and 150+), and then at the end (ll. 25–28) appear two larger sums, probably the total receipts (10110+) and the surplus (1000+), so that the total expenditure would have been somewhat more or less than 9110 drachmae. In one of the first three years, on fragments F+E, larger sums are involved, in one case  $71036\frac{2}{3}+$ , in another 34,807 drachmae; even if we place these on opposite sides of the account, assuming that the former was part of the receipts and the latter part of the expenses, it is clear that the operations may have attained a total as great as 100,000 drachmae. We might estimate, therefore, that the average for the nine years was about 55,000 drachmae, giving for the total cost of the statue about 500,000 drachmae or 83 talents, a sum which would imply that the dimensions were colossal.

<sup>&</sup>lt;sup>1</sup> Pliny, N. H. XXXIV, 41, 44.

<sup>&</sup>lt;sup>2</sup> I. G. I, 318-319.

From the location of the fragments at the time of their discovery, we must assume that the stele, and, therefore, probably the statue, were set up on the Acropolis.

The form of the letter  $\leq$  would place the inscription earlier than 447/6 B.C., when the Parthenon was begun; yet the letters are not archaic, so that the work is clearly post-Persian, probably slightly earlier than the middle of the century.

A colossal bronze statue, erected on the Acropolis shortly before the middle of the fifth century, at a cost of about 85 talents, can hardly have been other than the great bronze statue of Athena (the Promachos) by Phidias.

I am aware that in making this identification I am but adding another uncertainty to the many with which the Athena Promachos is surrounded. Date, size, and pose are all as yet undecided. With the pose we are not concerned; but the most reasonable estimates with regard to size and date seem to confirm the evidence of the inscription.

The colossal height of 70 to 80 feet including the pedestal, as suggested by Leake, Cockerell, Beulé, Penrose, Pennethorne, and many others,<sup>2</sup> is certainly excessive. On the other hand, those who would reduce it to 30 feet including the pedestal, as Michaelis, Milchhöfer, Bötticher, Overbeck, Gurlitt, Collignon, Frazer, Lechat, Gardner, and others,<sup>3</sup> are surely too conservative.

<sup>1</sup> Michaelis (*Parthenon*, p. 287) dated it earlier than 436/5; Kirchhoff placed it before 438/7 (*Memorie*, p. 133), and afterwards before 444/3 (*Corpus*); Larfeld places it between 480 and 445 (*Handbuch*, p. 440), or at least before 444/3 (*ibid*. p. 45); Bannier (*Rhein*. *Mus*. 1908, p. 429) assigns it to about 446/5 B.C.

<sup>2</sup> Leake, *Topography of Athens*, 1st ed., p. 243 n. 1 and plates, 2nd ed., p. 351; Beulé, *Acropolis*, II, p. 308; Pennethorne, *Geometry and Optics*, p. 35, pl. V; Dyer, *Athens*, p. 437; Penrose, *Athenian Architecture*, 2nd ed., p. x; Harrison, *Studies in Greek Art*, p. 201.

<sup>3</sup> Michaelis, Ath. Mitt. 1877, pp. 89–90; Milchhöfer, in Baumeister, Denkmäler, p. 208, and Waldstein, ibid., p. 1311; Bötticher, Akropolis, p. 96; Overbeck, Gr. Plastik, 4th ed., I, p. 348; Collignon, Sculpture Gr. I, p. 524; Blümner, Pausanias, I, p. 303; Busolt, Gr. Gesch. III, p. 449 n.; Lechat, Phidias, p. 75; Fougères, Grèce, p. 44; Hadaczek, R. Ét. Gr. 1913, p. 21. A fanciful identification of a bronze Athena at Constantinople with the Promachos has been adduced as evidence for this height; see Gurlitt, Analecta Graecensia, 1893, pp. 101–121; Jones, Select Passages, pp. 78–80; Frazer, Pausanias, II, pp. 349–350; Gardner, Greek Sculpture, 2nd ed., p. 281 n. 2; Gardner, Ancient Athons, p. 213; Gardner, Six Greek Sculptors, p. 88; Michaelis, Arx Athenarum, pp. 76–77; Judeich, Topographie, pp. 101, 216 n.; D'Ooge, Acropolis, p. 299; Weller, Athens, p. 344.

A better estimate is that of Reisch, based on the dimensions of the foundations, giving 30 cubits. For the pedestal is 5.58 m. square on the euthynteria and 5.28 m. square on the lowest finished course, implying, if we use the approximate ratio 1:3.1 found in other colossi of this period (Athena Parthenos, base 4.096 m. and height 12.75 m., i.e. 26 cubits; Apollo Sitalcas, base 4.96 m. and height 15.50 m., i.e. 35 cubits), a height of about 16.40 m. or 50 Attic feet including the pedestal. Such a height would bring the crest of the helmet 10 metres below the summit of the pediments of the Parthenon and 6 metres above the summit of the Propylaea. We may assume that the pedestal was about 8 Attic feet in height;



FIGURE 1.—CAPPING COURSE OF PEDESTAL.2

this satisfies the requirements of the few scattered architectural fragments, belonging to a Pentelic marble capping course  $1\frac{1}{2}$  Attic feet (0.485 m.) high, carved with a colossal bead-and-reel and eggand-dart, surmounted by a plain abacus from which the plinth of the statue receded 0.235 m. (Fig. 1),<sup>3</sup> and to a die of Eleusinian

<sup>&</sup>lt;sup>1</sup> Reisch, Jh. Oest. Arch. I., 1906, p. 221.

<sup>&</sup>lt;sup>2</sup> Adapted from a photograph of the German Archaeological Institute at Athens, Akr. 662. This block, lying on the site itself, is 1.234 m. long and 0.489 m. high; of the latter dimension the beads occupy 0.081 m., the eggs 0.207 m., the abacus 0.201 m.; the eggs are spaced 0.308 m. on centres. A similar block, 0.482 m. high, is now in the Library of Hadrian, and a fragment in the Acropolis Museum (annex).

<sup>&</sup>lt;sup>3</sup> This capping course was erroneously assigned by Penrose to the cornice of the temple of Zeus Olympius; see *Transactions Royal Inst. Brit. Architects*, 1888, pp. 98, 102; *Athenian Architecture*, 2nd ed., p. 86.

limestone. Then the statue would have been about 42 Attic feet, less, as we should expect, than the Apollo of Calamis at Apollonia, which held the record of 45 feet for the fifth century.

At a time when an ordinary portrait statue of life size, or more strictly heroic size (6 Attic feet, 1.96 m.), must have cost about a quarter of a talent,<sup>2</sup> a colossal statue of seven times life size would have required, according to the law of Sextus Empiricus, the expenditure of about 85 talents.<sup>3</sup>

As for the date of the Athena Promachos, we have no valid reason for dissenting from the view usually accepted, that it should be assigned to the Cimonian period, the decade before the ostracism of Cimon (461 B.C.).<sup>4</sup> It would then be the earliest of the three great colossal statues designed by Phidias, all with bases of white Pentelic marble and black Eleusinian limestone, evidently the result of the collaboration of Ictinus: (1) the Athena Promachos, 465–456 B.C.; (2) the Zeus at Olympia, 456–447 B.C.<sup>5</sup>; and (3) the Athena Parthenos, 447–438 B.C.

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<sup>1</sup> Pliny, N. H. XXXIV, 39–45, a chronological list of record-breaking colossi.

<sup>2</sup> The price in the Hellenistic period was twice as much, a half talent; see A.

de Ridder, R. Arch. 1915<sup>2</sup>, p. 97.

<sup>3</sup> See de Ridder, *loc. cit.*; the height, 7 (in terms of life-size statues), is cubed and then multiplied by ½ talent (the value of one life-size statue).

<sup>4</sup> The objections to this view, and the later dates proposed, are all based on untenable hypotheses. (1) Phidias was supposed by Müller (Werke, II, p. 17) to have died leaving it unfinished, since the shield was wrought by Mys and Parrhasius. (2) An extant inscription was supposed by Kirchhoff (I. G. I, 333) to have formed the dedication of the base, with letters too late for the Cimonian period; but it has been proved that the letters are too early, rather than too late, for the Cimonian period, and that the stone is in any case too small to have formed part of the base. (3) The Medici torso, of a style as late as 445 B.c. at least, was supposed by Lange and others to be a copy of the Athena Promachos.

<sup>5</sup> This date of the Olympian Zeus agrees best with the building accounts of the Parthenon; see A. J. A. 1913, p. 71. The work of Ictinus at Olympia during this period is discussed in my Culmination of Greek Architecture in the Age of Pericles, to be published by the Metropolitan Museum of Art.

### THE ORIGINAL PLAN OF THE ERECHTHEUM<sup>1</sup>

Dr. Dörpfeld's recent amplification of his well-known views as to the "Old Athena Temple" on the Acropolis at Athens<sup>2</sup> is likely to furnish the occasion for a reëxamination of many of the complex problems which his theories involve. As a corollary to his main thesis Dörpfeld restates his position, first presented in 1904, as to the "original plan" of the Erechtheum. It is with this feature of his article alone that we are now concerned.

Undoubtedly his brilliant discovery of Mnesicles's contemplated plan for the Propylaea<sup>4</sup> inspired Dörpfeld to seek a similar solution of the vexed problems connected with the Erechtheum. Few will now venture to question the correctness of his restoration of the original design of the Propylaea. Its unfinished walls, its waiting antae and cornice, its holes for roof-beams argue plainly the anticipated continuation of the building, and the theory has entered so fully into the literature about the Acropolis that further consideration is needless.

In his study of the Erechtheum Dörpfeld relies on evidence which he regards as identical in character with that which he

¹ Since this article was placed in the printer's hands, Dr. Gerhart Rodenwaldt has published in the Neue Jahrbücher (24, 1921, pp. 1–13) an article on 'Die Form des Erechtheions,' which touches upon the same problems. Naturally we both have hit upon similar, and in some cases identical, arguments. In the main, however, Dr. Rodenwaldt devotes himself to a justification of the form of the existing building on aesthetic grounds, arriving by a very different course at the same goal. Since our methods of treatment are so distinct, the two articles seem fairly to supplement one another, and I feel at liberty to leave my paper unchanged. In due respect for the inestimable services of Dr. Dörpfeld in the field of Athenian topography I should like to adopt as an expression of my own sentiments a footnote of Rodenwaldt: "Dem hochverehrten Meister der Erforschung der antiken Architektur fühle ich mich auch in diesem Falle, wo Bedenken gegen eine seiner Hypothesen erhoben werden, zu tiefstem Dank verpflichtet."

<sup>&</sup>lt;sup>2</sup> Das Hekatompedon in Athen, Jb., Arch. I. XXXIV, 1919, pp. 1-40.

 $<sup>^{3}\,^{\</sup>prime}$  Der Ursprüngliche Plan des Erechtheion, Ath. Mitt. XXIX, 1904, pp. 101–107.

<sup>&</sup>lt;sup>4</sup> Ath. Mitt. X, 1885, pp. 38 ff., 131 ff.

found in the Propylaea. He enumerates the asymmetrical plan of the building, the extension of the North Porch beyond the west wall, the lack of a distinctive pilaster at the southwest corner next to the Porch of the Maidens, and the varying supports to the west—tall columns, short columns, Caryatids—which seem to him to point to incompleteness, or at all events to a building not in conformity with the original design of the architect. Upon this evidence he bases the theory that the building was originally meant to extend farther to the west. Its presumable length he determines, from comparative measurements of the rooms of the present building with relation to the axis of

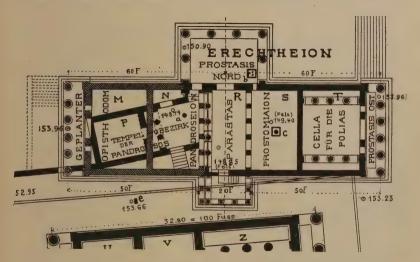


FIGURE 1.—ERECHTHEUM: ORIGINAL PLAN ACCORDING TO DÖRPFELD.

the north and south doors, as 120 Attic feet. In the central rooms he places the divine tokens—well, trident-mark, olive-tree, etc.—as well as the Pandroseum, and apparently the Cecropium. The west room, corresponding to the "cella for the Polias" to the east, he appropriates as an opisthodomus planned to replace the west rooms of the "Old Athena Temple," and therein finds support for his theory as to the perpetuation of the Hekatompedon (cf. Fig. 1).

This theory of an "original plan" has been received with more or less approbation by various scholars; by some stoutly supported;

<sup>1</sup> Whom in his recent article, p. 13, he calls Mnesicles, perhaps by a slip of memory.

quite as energetically opposed by others.<sup>1</sup> A new investigation of the evidence seems desirable.

In the first place we must determine what indications, if any, are left to show that the architect may have intended, provided the objections of the opponents to his plan were later removed, to prolong the Erechtheum westward. The probable character of such evidence can be seen by comparison with corresponding members of the Propylaea. Confining ourselves to the unconstructed northeast portico of that building (cf. Fig. 2), we find

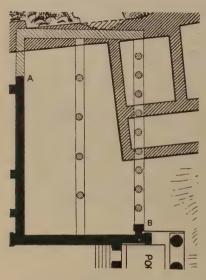


FIGURE 2.—PROPYLAEA: PLAN OF NORTHEAST CORNER SHOWING EXTENSION OF NORTHEAST WALL (A), AND SOUTHEAST ANTA (B).

the following evidences of future intention: (1) a now purposeless outer cornice along the two walls which would become the west and south walls of the portico: (2) a southeast anta which undoubtedly was meant to receive an architrave running north: (3) holes in the sidewalls, manifestly for the reception of beam-ends; (4) a now meaningless northward extension of the rear wall of the proposed portico and the foundation upon which it would have been continued. The same sort of evidence is found for the southeast portico and the dwarfed southwest wing. It is to be noted that the proposed additions could

have been made without the removal or alteration of any portion of the structure as built.<sup>2</sup>. In the case of the Erechtheum we shall find the situation vastly different.

<sup>1</sup> E.g., D'Ooge, The Acropolis of Athens, pp. 212–214; Elderkin, Problems in Periclean Buildings, pp. 49–58; Petersen, Die Burgtempel der Athenaia, p. 6. The theory is briefly outlined in my Athens and its Monuments, p. 333, with the caveat that it "cannot be said to have been fully demonstrated,"—a statement which I should now modify.

<sup>2</sup> Plans and elevations are brought together conveniently in Michaelis, *Tabulae Arcem Athenarum Illustrantes*, pp. XVII—XIX (with partial bibliography); on a smaller scale in D'Ooge, *op. cit.* figs. 79 and 82.

In the first place, if the walls of the Erechtheum were to be extended, the new section must have engaged the present walls at the northwest and southwest corners of the building. We must endeavor to discover how such a juncture could have been effected.

Without doubt the portion of the rear wall of the North Porch which projects beyond the west end of the building is aesthetically disturbing (cf. Fig. 3). How thoroughly it was concealed by the parapet along the "Old Temple" terrace, and possibly by the olive-tree, we cannot know. But even if it were wholly in



FIGURE 3.—ERECHTHEUM FROM SOUTHWEST SHOWING EXTENSION OF WALL IN REAR OF NORTH PORCH.

view, this fact would not necessarily argue for the intention to embody it within the building at a later time, as we shall see.

If this wall were to be prolonged, how could the new section be linked with the existing wall? In order to meet the needs of Dörpfeld's theory, the juncture could be effected only by demolishing this entire corner of the North Porch together with the adjacent corner of the building nearly back to the north door into the west room. This projecting north wall, which is of the height of the Porch, ends in a double anta facing north and south. The architrave of the Porch extends across both antae and bears the same frieze and corn ce as in the other parts of the Porch. The antae and the wall between them are finished at top and bottom

with moldings, the wall between being slightly depressed as usual. A double anta of similar form is to be restored at the northwest corner of the southwest wing of the Propylaea, where the two antae, here at right angles to one another, face colonnades. By analogy the south face of the double anta of the Erechtheum should face a west colonnade at the level of the Porch, which is manifestly impossible. In order to prolong the north wall of the Erechtheum, then, this double anta and the entablature above it must be taken down; it would obviously not be feasible to erect the wall without engaging alternate layers. If such an alteration had been contemplated, it would have been easy to provide for it. No provision is made.

The situation at the southwest corner even more plainly defies any kind of juncture, though one may readily grant that the absence of a finished anta like the one at the east end of the south wall is irregular. Nevertheless, with the sort of bonding used in the construction of the building, the supposed prolongation would require complete demolition of the corner up to and including the pediment.

This is not all. Beneath the corner there is no foundation, the weight of the superstructure being supported by a great block, which spans the opening where the foundation is lacking: the wall above the block is lightened to reduce the pressure.<sup>2</sup> It has long been recognized that beneath this corner reposed some sacred structure which could not be disturbed.3 Clearly this structure must not bear any weight. How far it extended westward we do not know; perhaps for some distance. It is conceivable that by a complete redesigning of the building a longitudinal block might have been laid under the wall from east to west so as to span the space—conceivable but improbable, since the sacred structure in question, judging from the size of the aperture, must have extended eastward almost to the south door, leaving no adequate foundation for the necessary span. Perhaps the door might have been moved, but if the reconstruction demanded such a transfer, the axis on which Dörpfeld's theory largely depends would be dislocated.

The execution of the "original plan" of course implies the

<sup>&</sup>lt;sup>1</sup> Michaelis, op. cit. p. XVII, Nos. 1 and 4.

<sup>&</sup>lt;sup>2</sup> Cf. A.J.A., XII, 1908, p. 196.

<sup>&</sup>lt;sup>3</sup> That this object was the grave of Cecrops is far from proved. Cf. Judeich, *Topographie von Athen*, pp. 252 f. for bibliography.

demolition of the west wall of the Erechtheum and the erection, a meter to the west, of a screen-wall like the one supposed to have existed along the east side of this room. As we have seen, the foundation of the west wall fell short of reaching the south corner of the building. Curiously enough the north end of the same foundation also fails to articulate with the adjacent foundation. From this fact the inference has been drawn¹ that the architect changed his mind after laying the foundation, but this does not appear to be Dörpfeld's view. The actual reason for the lack of articulation is unclear. If the architect contemplated a subsequent removal of the west wall, and for this reason left the foundation unjoined, he should, a fortiori, have disconnected the upper wall as well. It would have been far more difficult to cut the marble wall and bond it anew.

We must also note that the proposed west screen-wall would have demanded further rebuilding both of the North Porch and of the Porch of the Maidens. At its north end the screen-wall would have partially blocked the small door from the North Porch into the Pandroseum. Either the width of the door must have been reduced to less than a meter, or else the door must have been abandoned altogether. Whichever scheme was adopted, a further destruction of the wall of the Porch would have been necessary.

The new plan would also have required the razing of the Porch of the Maidens, at least to the level of its parapet, and the complete rebuilding of its west end. According to the proposed theory this Porch was to be 20 Attic feet wide, or about three feet wider than it now is. Even if one could admit the possibility of so radical an operation, it is doubtful whether the Porch could be built 20 feet wide, without changing also its other dimensions, including the height of the Carvatids. Not to speak of the probable squat appearance of such a structure, it is worth observing that if the present Carvatids were more widely separated the interspatial relations would be altered from about 2:3 to about 3:3 (that is, width between axes as compared to height of figures), which doubtless would result unpleasantly. It may be that such a contingency might be avoided by moving the Porch bodily to the west,2 but this would be an extreme bit of surgery: nor is it Dörpfeld's view.

<sup>&</sup>lt;sup>1</sup> Elderkin, op. cit. p. 49.

<sup>&</sup>lt;sup>2</sup> Cf. Penrose, The Principles of Athenian Architecture, p. 90.

Even if we be bold enough to believe that the building as constructed could be so maimed—the entire west wall removed. the corner of the North Porch and the Porch of Maidens refashioned—quite as serious an architectural predicament would remain in the construction of the west end of the proposed building. This west end is supposed to contain an elevated room fronted by a colonnade, as at the east. Unfortunately the contour of the Acropolis is here very different. At the east end of the building the surface of the rock is high, and the lowest step needs to be raised only by a single block of poros. On the other hand, the rock to the west slopes rapidly away, and the point where the supposed corner would fall has an elevation above sea-level of about 148 m. as contrasted with the elevation of 153.96 m, for the upper surface of the stylobate of the supposed west colonnade. In other words, at the northwest corner the height of the stereobate would be more than five meters: at the southwest corner it would be approximately a meter less. To reach the top of this foundation from the north would require about sixteen steps of the height of those leading up from the vicinity of the North Porch; and the upper step would crowd back nearly to the middle of the colonnade. Even if we were to assume a fill of two meters rising to the level of the bottom of the steps of the North Porch, we should still have a sort of Roman podium about three meters high. Beneath the temple of Victory Athena at the west end of the Acropolis we do find a lofty bastion, but the conditions are quite different. So, too, are those of the foundation of the "Old Temple," which is high at the northwest corner but fades into nothing at the southwest corner, affording an easy approach from the west. It may be that some sort of a bridge or causeway from the "Old Temple" terrace would meet the requirements. Such a solution, however, could hardly be suggested seriously, but it is scarcely more absurd than the flight of steps which Dörpfeld builds from the terrace down to the Pandroseum, in order to enable Pausanias to meander about this complex of buildings.

In the disposition of the unequal heights of the stereobates at the northwest corner, another perplexity would arise. At the

<sup>&</sup>lt;sup>1</sup> This elevation is estimated from the figures given in Cavvadias und Kawerau, *Die Ausgrabung der Acropolis*, pl. 3, where the nearest elevations are 147.45 m. and 148.50 m., slightly northwest and southwest, respectively, of the required point. The elevation of the stylobate of the North Porch is 150.96 m. according to Kawerau's plan, not 150.90 m. as in Fig. 1 above.

northeast corner the peculiar terrain veils the unusual juncture. Here the difference would stand out boldly. A person looking at the building from the northwest would see to his right a lofty podium surmounted by colonnade, entablature, and pediment, while to his left his eye would drop abruptly to the foot of a plain wall at the level of his feet, an unprecedented relationship. Without the impossible fill the contrast would be still more marked.

The three rooms between the "opisthodom" and "die cella für die Polias" (N, R, S in Fig. 1 above) Dörpfeld calls the "Pandroseion" the "Parastasis," and the "Prostomiaion"; this nomenclature is dubious, but need not now be discussed. In the first of the three rooms, of necessity, he places the sacred olivetree; of course this would preclude the existence of a floor. In the third room, he thinks, was the well; this room, too, would have no floor. The middle room was entered from the north and south doors; it must have had a floor. In passing, it may be noted that this floor would be distinctly higher than the levels of the adjacent rooms and, on the sides, especially to the east, could be reached only by steps, which Dörpfeld omits.

That the high walls on all sides of the olive-tree might interfere with its growth Dörpfeld evidently considers of no moment, but the oversight is not negligible. The wall to the west, only four or five meters from the tree, would rise a dozen meters above its roots. To the east a similar wall would stand from two or three to, at most, fourteen or fifteen meters away. Roughly estimated, the entire tree would receive the direct rays of the sun not more than four and, perhaps, less than two hours a day. It might also be interesting to know how widespread the tree's branches were and whether an aged olive-tree, growing as it normally would, could find space at all within so contracted quarters. Here enters a nice horticultural problem in which an archaeologist must not meddle!

In order to make consistent his theory of an hypaethral Pandroseum, Dörpfeld is driven to a still more remarkable doctrine, namely, that the other two rooms of this series were also hypaethral, and furthermore, that the two west rooms of the present building had no roof. This is pure assumption. No hint of such a construction is to be found in the side-walls. What is more, the theory disregards the almost certain restoration of the

<sup>&</sup>lt;sup>1</sup> Cf. Judeich, op. cit. p. 246.

ceiling of these rooms made on the basis of the building inscriptions, not to speak of the extraordinary phenomenon of a free-standing west wall, with windows or gratings, columns, and pediment, but with no roof behind the pediment! It is also difficult to surmise the purpose of screen-walls two feet thick dividing the rooms, if the space were hypaethral. The matter of drainage, too, would introduce interesting problems. But, since the question is not primarily related to the present inquiry, its discussion may be omitted.

If we are now ready to grant that the building might have been extended according to the alleged plan, how long would it have been? Dörpfeld makes the length wholly dependent upon certain relations of the internal measurements of the present building. The distance from the central axis of the east colonnade to the east face of the east cross-wall is 30 Attic feet; from the same face of the east cross-wall to the east face of the west cross-wall the distance is figured as 20 feet; from the same face of the west cross-wall to the central axis of the north and south doors, 10 feet: 30+20+10=60. Reverse the figures, he says, and you have the corresponding dimensions for the west half of the supposed building: 10+20+30=60. The conclusion is strange enough. In the first place, we must find a parallel for such a correlation in existing Greek architecture. Certainly it does not obtain in Athenian buildings, not even in the "Old Temple." for which the Erechtheum was to be a substitute. So far as the concatenation of figures is concerned, one might go a step further. From the axis of the north and south doors to the east face of the present west wall the distance is 5 feet. Now the series will be: 30+20+10+5; ergo, the original plan must have placed the west wall where it is. Or, the distance from the axis of the doors to the west face of a hypothetical west wall of the usual thickness and in line with the southwest anta of the North Porch would be · 15 feet: 2 ergo, the architect intended to build the west wall at this new point. Would he had done so! Truth is, the series is specious, and it loses all measure of validity if the figures be inaccurate. According to the most convincing division of the west half of the building the rooms were really 19 and 12 feet in length

 $<sup>^{1}</sup>$  Hill, 'Structural Notes on the Erechtheum,' A.J.A. XIV, 1910, pp. 291–297.

 $<sup>^2</sup>$  Measurements based on Stevens's excellent plan in  $A.J.A.,~\rm X,~1906,~p.$  48, fig. 1.

from east to west.¹ Counting the walls two feet thick, the series now becomes 30+21+9, or, if we measure the rooms alone,  $22\frac{1}{2}+21+9$ . But if one measures from the axis of the east colonnade, why not also from the axis of the cross-walls? Whereupon the figures become 31+20+9, or better 31+21+8. Or, let us measure the rooms alone, and the series will be  $22\frac{1}{2}+20+10$ , or,  $23\frac{1}{2}+21+8$ . Juggle the figures as you will, in any event the magic of the tens vanishes, and with the tens falls the theory.

In the face of the objections which have been suggested it seems impossible to maintain the theory of the "original plan" which Dörpfeld offers. To be sure, in his recent article he insists that the antagonisms which were met caused the architect to change his plan before the building was begun.<sup>2</sup> This does not obviate the difficulties, but augments them. If an architect so constructs his building that to alter it in harmony with an assumed plan demands the destruction of an extensive portion of what he builds, we shall find it hard to believe without corroborating literary evidence that the suggested plan was ever in his mind; divination alone would suffice to discover his thought. we find the suggested plan virtually impossible of construction on accepted principles, the objections to it become insuperable. What the architect did, we have. We may cherish suspicion and doubt, but no archaeological proof of a different plan is tenable except in the presence of such telltale tokens of future intention as Dr. Dörpfeld so cleverly disclosed in the Propylaea. Of such intention in the case of the Erechtheum he has not adduced any positive evidence.

So far as we can determine, then, the original plan of the Erechtheum was the one upon which the building was actually constructed. Its complexities may never be fully resolved. One must freely admit that the construction of the west end is obscure. Here the architect must have been constrained on every hand. The old temple of Pandrosus stood in his way, and near by rose the sacred olive-tree, its branches overspreading the altar of Zeus Herceius. Along the north and west sides of the precinct, known generally as the Pandroseum and perhaps containing other venerated objects, ran a high wall, which enclosed the area. From the outset the architect and his mentors must have known that this precinct was inviolable. The nature of the

<sup>&</sup>lt;sup>1</sup> Hill, op. cit. p. 295 and fig. 2.

<sup>&</sup>lt;sup>2</sup> Op. cit. p. 14.

sacred objects—the temple, the tree, etc.—shows that they could not be covered.

Obviously nothing could be done but to make the best of a difficult situation. The temple of Pandrosus was joined by the architect to his new building ( $\sigma v \nu \epsilon \chi \dot{\eta} s$ , Paus. I, 27, 2), probably to the south of the west door, where the retracted foundation and unfinished wall above it suggest that the space was hidden. The west door was removed to one side, in order to provide access between the old and new temples. A large block spanned the opening which must be left under the southwest



FIGURE 4.—ERECHTHEUM FROM WEST.

corner. The North Porch was widened so as to engage the north wall of the precinct and to accommodate a side door from the Porch into the Pandroseum.

We must not forget that in ancient times an observer looking at the Erechtheum from the west or southwest enjoyed a different aspect of it from the one which we have today. Westward the precinct wall rose high enough to conceal nearly all of the west end of the building below the columns. Along the "Old Temple" terrace stretched a parapet at least as high as the feet of the Maidens of the South Porch, and the olive-tree also shut out a part of the view. Furthermore, it is not unlikely that some other structure—possibly of wood, like the gratings between the west

<sup>&</sup>lt;sup>1</sup> Cf. Ath. Mitt. II, 1877, pp. 31 ff.

columns, but perhaps belonging to the structure which reached under the corner of the building—abutted against the corner and also acted as a screen; certainly some elevated object had at least a visual connection with the "metopon" within the building at this corner, for the "metopon" and its adjuncts, including the open intercolumniation, were made for a purpose more definite than merely to lighten the wall. Under the circumstances, therefore, the architect's handling of his difficult task becomes quite irreproachable (cf. Fig. 4).

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# A GROUP OF ROMAN IMPERIAL PORTRAITS AT CORINTH

## [PLATES V-VII]

During the course of the excavations conducted at Old Corinth by the American School of Classical Studies at Athens in 1914–1915 there came to light the remarkable series of Roman portrait sculptures which are to be considered in this and subsequent articles. These comprise no less than eight major pieces, of which four have their features sufficiently well preserved to admit of a probable identification, while two others may be determined through fairly plausible conjecture. In addition to the eight just mentioned there was found a large number of fragments of works of a similar sort, most of which are too small to permit of restoration yet which are of some interest in themselves and in that they serve also to throw light on the more important works.

All the larger sculptures as well as the great majority of the fragments date apparently from the Roman imperial period and show strong resemblances both in style and technique. material throughout the series is a Pentelic marble of uniformly fine grain, and the works themselves almost without exception were unearthed at the level of Roman stratification and well within the same general excavation area. This area is located at the southeast corner of the ancient market place and comprises a considerable space above and to the south of the spring Pirene. Here were uncovered the foundations of a large rectangular building of the Roman period (Fig. 1), a structure solidly and even magnificently built and apparently of considerable importance. From its size, shape, rich marble decoration, and in particular the number of bronze and bone stuli found within its confines it seems probable that the building served as a basilica. All the statues save one of minor importance were unearthed within its limits, and it seems entirely probable that in it—or perhaps on it—they were originally set up.

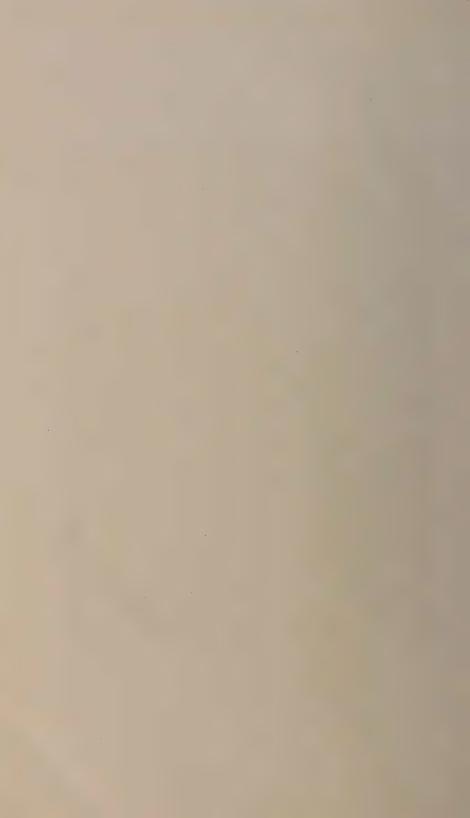


PORTRAIT STATUE OF AUGUSTUS: CORINTH.



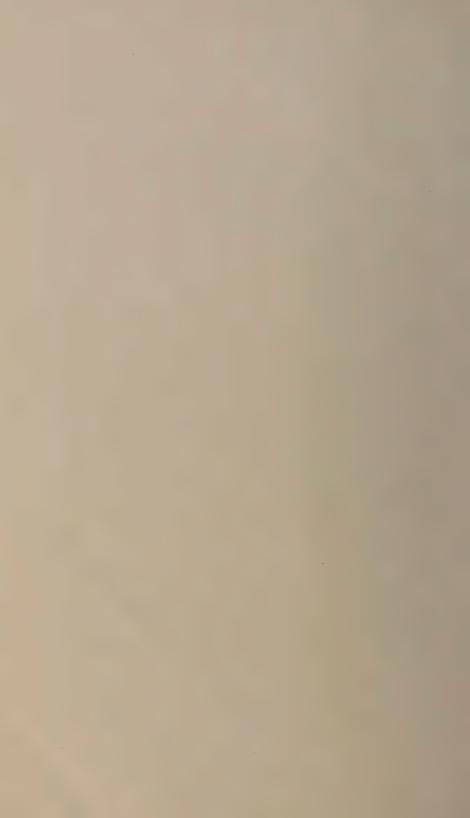


HEAD OF AUGUSTUS: CORINTH.





PROFILE OF AUGUSTUS: CORINTH.



In my study of the group I shall present the individual portraits in the order of certainty of identification, those pieces offering least difficulty in that respect being first considered. They will then be discussed together as probable constituents of a single historic group, the date and occasion for the setting up of which may perhaps be determined. In an additional section I shall consider in its broader aspects the question of the sculpture of the imperial period in Greece, with the more specific problem



FIGURE 1.—ROMAN BASILICA: CORINTH.

of the neo-Attic school in Greece. And finally, an attempt will be made to prove that in imperial Roman portraiture there were ordinarily used standard types or canons which originated in Rome in authoritative works and were sent out in the form of clay or waxen models—"imagines"—to be reproduced in monumental form in the provinces.<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> I wish to acknowledge my indebtedness for valuable criticism and suggestions in the preparation of this and the following papers to Dr. B. H. Hill, Director of the American School of Classical Studies at Athens, and to Professor G. W. Elderkin of the Department of Art and Archaeology of Princeton University.

### I. Augustus

This statue of Augustus (Plates V, VI, and VII) was discovered lying apparently as it had fallen. imbedded in a thick stratum of broken Roman tiles, marble fragments, small stones and debris at a depth of between three and four meters and well within the northwest corner of the Roman basilica mentioned above.<sup>2</sup> The figure rested on its right side with the head slightly lower than the rest of the body, and had apparently been thrown down with great violence. It seems probable that it stood originally on an upper floor of the building, had been shaken from its basis by an earthquake which destroyed the basilica itself. and had fallen through to the basement with the debris of the shattered roof and walls: from the time of its fall and the general destruction of the building it had not been disturbed. Immediately above it was an accumulation of early Byzantine debris, and just over the shoulder of the statue passed the foundations of a small wall of the same period, its base resting on the stratum of Roman tiles and marble fragments in which the figure was imbedded.

The statue itself is considerably larger than life-size and, with the exception of the hands, is preserved from the crown of the head to the middle of the lower leg, its total height being 2.00 m. (cf. Plate V).<sup>3</sup> The left hand and the right hand and forearm were made in separate pieces and attached by means of strong dowels, the cuttings for which still remain. Although the feet and legs are lacking from below the middle of the shin, there were found in the same stratum with the statue itself two marble fragments of a large left ankle which must certainly have belonged to the figure. At the back of the ankle a perpendicular line of breakage indicates that the leg was reënforced by a marble

<sup>&</sup>lt;sup>1</sup> Bernoulli, *Römische Ikonographie*, II, 1, pp. 53–54, in giving the "Fundorten" of the portraits of Augustus listed by him, mentions none of Greek provenience, and only one—doubtful, from Constantinople—as from the whole eastern half of the Roman Empire. The Corinthian Augustus, then, appears to be a unique work in Greece.

<sup>&</sup>lt;sup>2</sup> Basilicas were often used to receive imperial portraits. Cf. Bernoulli, op. cit. II, 1, p. 22, ". . . . indem man annehmen darf, dass in jeder einigermassen nennenswerten Stadt, in den meisten Basiliken und offiziellen Versammlungslokalen, auf allen ihm geweihten Triumphbögen und in allen seinen Tempeln eines oder mehrere dergleichen (Bildnisse) aufgestellt waren."

<sup>&</sup>lt;sup>3</sup> Further dimensions; greatest width .75 m., length of neck .115 m., length of face .185 m., width of face .165 m., height of forehead .05 m., length of nose .075 m., from nose to chin .065 m., width of mouth .053 m.

"tree trunk," or support of some sort. The rim of the heavy loop of drapery passing down the right side of the body is more or less chipped (cf. Plate V), as are also the horizontal roll at the waist beneath the right elbow and the edge of the veil over the crown of the head (cf. Plate VI). Elsewhere, save for minor abrasions, the drapery is well preserved.

The material is a good grade of Pentelic marble in which appear, however, a few veins of silvery schist or mica; a particularly well-marked vein runs the whole length of the right side passing just in front of the right arm, over the right shoulder, and diagonally through the back of the neck and head from right to left. Along this vein several breaks occur, particularly those about the head and face.

The statue is a draped male figure represented in the guise of a priest, or magistrate engaged in pouring a sacrificial libation, the upper folds of the rich ceremonial toga being drawn over the head to form a sacrificial veil.¹ The weight of the figure is supported on the right leg, while the left is slightly bent at the knee and extended forward. The left arm is bent nearly horizontal at the elbow with the forearm extended supporting the heavy folds of drapery which fall along the thigh and leg. The right forearm, now lacking, was advanced to the right and was bare. Many analogies may be quoted for the pose and the general handling of the drapery.² The right hand probably held a patera, the usual

<sup>1</sup> Cf. Daremberg et Saglio, Dict. des Antiq. Grecques et Romaines, s.v. sacrificium, Rome II,—"In public sacrifices celebrated in the name of the state, the one who sacrificed was a magistrate, consul or proconsul, praetor or propraetor, or sacerdos. . . . The sacrificing priest or magistrate, if he wished strictly to observe the ritus Romanus, had to sacrifice velato capite, i.e., covering with his toga the whole top of the head and back of the neck,—the so-called cinctus Gabinus, for which cf. Servius, Ad Aen. V, 755. The origin of this custom is not known, but cf. Aeneid, III, ll. 403-409. The veiling occurs on numerous monuments, among them: 1. Roman coins. Cf. Daremberg et Saglio, op. cit. figs. 6004, 6005; also Cohen, Med. Imp. Rom., I, pl. IX, No. 18; 2. Ara Pacis. Cf. Daremberg et Saglio, op. cit., fig. 6006; also Petersen, Ara Pacis, plates; 3. The Augustus of Otricoli. Cf. Helbig, Führer, 2nd ed., No. 327; 4. Statue of a priest in the Vatican. Cf. Visconti, Museo Pio-Clem. III, 19; also Clarac, Musée du Louvre, pl. 768 b No. 1909; 5. Several reliefs of the Column of Trajan. Cf. Cichorius, Die Reliefs der Traianssäule, pls. XXXVIII and LXXVI; 6. Relief of Marcus Aurelius sacrificing, Palazzo dei Conservatori. Cf. Helbig, op. cit., No. 561.

<sup>2</sup> The following are the most important: 1. Augustus veiled, in Vatican. Cf. Overbeck, *Gesch. der Gr. Plastik*, II, fig. 234 g; Duruy, *Hist. des Rom*. III, p. 725, cut. In this figure the pose of body, position of legs and arms, and pose

attribute of this type of figure.¹ The head is turned rather sharply to the right, and the gaze follows the general direction indicated by the right arm; the eyes appear to be focused on a point at some little distance, but their expression is not of great intensity. The ears are rather prominent and, as usual in this type of veiled head, appear to be pushed forward by the edge of the veil which passes just behind them.²

The head and face were found in three separate pieces the largest of which comprises the neck with the back and top of the head, the left ear with the hair just above it, and the folds of the

of head are almost exactly similar to the Corinthian Augustus; the drapery is also very like, though more voluminous and lacking the remarkable loop or sinus at the right knee (cf. our Pl. V). 2. Augustus veiled, in Royal Museum, Madrid. Cf. Reinach, Rep. de la Stat. Grecque et Romaine, I, p. 563, pl. 916 A, No. 2337 A; Hübner, Antike Bildw. zu Madrid, No. 78; Bernoulli, op. cit. II, 1, p. 39, No. 63. Here also the pose is very similar, but the drapery much freer and more voluminous. 3. Augustus veiled, in Borghese Museum, Rome. Cf. Reinach, op. cit. II, p. 578, No. 8; Nibby, Mon. Borgh. pl. 10; Bernoulli, op. cit. II, p. 32, No. 25; Helbig, Führer, No. 896 (edit. 1891). Here the position of the legs is reversed, but the treatment of the drapery and the pose of arms and head are almost identical with the Corinthian Augustus; the sinus, however, does not fall so sharply, and extends only to the right knee and not below it.

¹ Cf. Daremberg et Saglio, op. cit. s.v. patera,—"It is often put in the hands of magistrates, emperors, and divinities themselves." See also s.v. sacrificium, fig. 6004, a Roman coin on which is a male figure in a toga, head veiled, pouring a libation from a patera in the right hand upon a flaming altar. Cf. also Augustus as Pontifex Maximus in Vatican, Overbeck, op. cit. II, fig. 234 g; also Duruy, op. cit. III, p. 725. Of this statue Helbig, op. cit. No. 319, remarks: "Left hand and right forearm with patera restored. . . . The toga pulled up over the back of the head indicates that he was represented as sacrificing, probably with reference to his position as Pontifex Maximus, and that the restoration of the patera in the right hand is thus correct." Cf. also Reinach, op. cit., I, p. 451, pl. 768 B. No. 1909; I, p. 579, pl. 940 A, No. 2398 B; I, p. 583, pl. 945, No. 2422; II, p. 578, No. 8.

<sup>2</sup> Cf. for this trait the portrait head of Tiberius at Corinth (to be published as the second paper of the present series); also the following works: Statues of Augustus as Pontifex Maximus, e.g. 1. In Royal Museum, Madrid. Cf. Reinach, op. cit. I, p. 563, pl. 916 A, No. 2337 A; Hübner, op. cit. No. 78; Bernoulli, op. cit. II, 1, p. 39, No. 63, "mit abstehenden Ohren." 2. In Borghese Museum, Rome. Cf. Reinach, op. cit. II, p. 578, No. 8; Nibby, Mon. Borgh. pl. 10; Bernoulli, op. cit. II, 1, p. 32, No. 25; also Helbig, op. cit. No. 896. Draped figures in the same pose, e.g. 1. In Royal Museum, Turin: "prêtre voilé," Reinach, op. cit. I, p. 451, pl. 768 B, No. 1907 A. 2. In Aquileia. Cf. Reinach, op. cit. II, p. 579, No. 7; Bernoulli, op. cit. II, 1, p. 154, No. 55; Leipziger Illus. Zeit. Feb. 1884, p. 136.

veil down the left side. The face, front of head, and right ear form a second fragment which was not found until a day or so after the body appeared. The violence with which the statue was thrown down had caused the stone to split neatly along the line of the mica-flaw above mentioned, and had sent the face sliding a meter or two northward amidst the debris. Nevertheless the face shows scarcely a scratch (cf. Plates VI and VII). The third fragment is a fold of veil which extends between the right shoulder and neck.

When the statue was first brought to light the hair still preserved numerous traces of a flat wash of color a deep red in tone; upon the surface of the eveballs the painted outline of iris and pupil could also be clearly traced, and the lips were still enlivened with a transparent reddish tinge. It seems probable that, in its original condition, the red pigment of the hair served merely as an under-coating or sizing upon which gilding was applied, a conclusion strengthened by the notice of Suetonius (Div. Augustus. 79) to the effect that the hair of Augustus was naturally of a vellowish tinge. capillum subflavum.<sup>2</sup> At all events the total effect of the coloring was astoundingly life-like and far from displeasing to the eve; unfortunately, however, the color faded rapidly upon exposure to the air. In general the statue shows but slight traces of atmospheric weathering, and hence must have stood under cover: it is somewhat marked with ground and root stains. The drapery though dignified is rather heavy and is finished with no great care. The rear of the figure is very sum-

¹ Polychromy in Roman sculpture; cf. the following: Boeckler, 'Die Polychromie in der antiken Sculptur', Jahresbericht der Realschule zu Aschersleben, 1882; He gives a résumé of the literary sources and supplements it by a description of ancient sculptures showing traces of polychromy, mentioning several works of the Roman period, none of which, however, are portraits. R. Delbrück, Bildnisse Römischer Kaiser, p. 4; 'Zum Schluss sei bemerkt dass die Porträts der Kaiserzeit polychrom waren, mit hellen oder dunklen Haaren und Brauen, farbigen Augen, roten Lippen, ähnlich wie auf den Mosaiken, z.b. von Justinian I und Theodora in San Vitale zu Ravenna, taf. XLIII, XLIV. Davon sind freilich höchstens Spuren da.' Cf. also taf. VI, and Delbrück, Antike Porträts, taf. 34. H. Blümner, Technische Probleme aus Kunst und Handwerk der Alten, Berlin 1877, p. 10; He gives a general bibliography on the subject, extending from 1826 to 1872.

<sup>&</sup>lt;sup>2</sup> Cf. also Boeckler, op. cit., who mentions an archaistic Diana from Herculaneum, now in the Naples Museum, reproduced in color in Walz, Ueber die Polychromie der antiken Sculptur, taf. I, No. 1. He says 'Das Haar ist von einer rötlichen Farbe und scheint ursprünglich vergoldet gewesen zu sein.'

marily treated, simply blocked out without detail of drapery or finish of surface, a fact which indicates that the statue was to be set up against a wall or within a niche and at a level well above the eye of the spectator.<sup>1</sup>

In the matter of technique several points are worthy of notice. First, the drill was used rather freely in working the deeper folds of drapery, and more particularly where undercutting was necessarv as, for instance, between the veil and the sides of the neck. and on the crown of the head between the front edge of the hood and the hair just beneath it (Plates V and VI); in positions of this sort little care was taken to obscure the traces of drilling. On the flesh surfaces, however, the instrument was used much more carefully, yet slight traces are discernible inside the nostrils, at the inner corners of the eyes, inside the ears, and at the corners of the mouth. The flesh surfaces are smoothly worked but unpolished, and upon close examination show clear marks of tooling. both with the fine-point and the fine-tooth chisel. The modelling of the face is firm though somewhat lacking in subtlety of finish. and seems to have been deliberately conventionalized; it lacks entirely that individuality and force of character which appears so strikingly in the Augustus of the Vatican from Prima Porta.<sup>2</sup> The hair across the forehead is freely and thickly worked, yet here also a certain conventionalism is apparent in the treatment of the individual locks which is quite in keeping with the general character of the portrait. The gaze, which is directed slightly downward and to the right, lacks concentration and purpose due largely to the fact that the eyes are not opened to their full extent. but more directly to the flat and impressionistic treatment of the eveball.<sup>3</sup> The lids are clearly worked and are given considerable relief even at the outer corners. A point worthy of notice is that the eyes are not deep-set as in the majority of portraits of Augustus, and vet, due to the flattening of the eveballs and to the roll of flesh beneath the brows at the outer corners, an effect of depth

<sup>&</sup>lt;sup>1</sup> Cf. our Pl. VII. The Augustus of Prima Porta was treated in this same manner, according to Bernoulli, op. cit. II, 1, p. 27.

<sup>&</sup>lt;sup>2</sup> Cf. Brunn-Bruckmann, Denkmäler, taf. 225.

<sup>&</sup>lt;sup>3</sup> Cf. Pls. VI and VII. This in general is characteristic of the period, although the slight hollowing of the pupils which became common in the time of Hadrian appears also in the Augustan period, e.g., in the Augustus of Prima Porta, cf. Bernoulli, op. cit. II, 1, taf. I; and in the Berlin Tiberius, cf. Furtwängler, Die Sammlung Sabouroff, taf. XLIII; also Brunn und Arndt, Gr. und röm. Porträts, taf. 19–20.

is produced without at the same time any great individualization. The brows themselves though straight and well marked are rather generalized in treatment as is also the characteristic Augustan frown between the eyes. The same may be said of the mouth and nose, though the former does not lack a certain delicacy and strength. To my mind the work may be briefly summarized as follows: First, its most striking characteristic is the strict conformity to an apparently well-established type. Second, realism is not attempted or desired.—in fact the portrait is generalized. consciously academic in treatment, and seems clearly the work of a man who had had no opportunity of studying his subject at first hand, in spite of the fact that iconographic details are meticulously represented (vide infra). Finally, in marked contradistinction to the majority of contemporary works done at Rome there is here displayed that persistently Greek trait of idealization which presents to us Augustus, not as he was in life, but as the visible embodiment of the benignity and moderation of the Roman rule.

Thus far I have assumed that we had to do with a portrait of Augustus. Although this assumption could scarcely be challenged by anyone familiar with the Augustus type in sculpture it is nevertheless advisable to review briefly the iconographic criteria which prove the attribution.

The Augustan physiognomy, once seen and studied in a portrait such as that from Prima Porta or the bust in Munich, is never forgotten; the features, clear cut, refined, powerful, are indelibly impressed on the memory, and one feels instinctively that here, indeed, was a man worthy to be the founder of the Roman Empire. Though comparatively few of the extant portraits appeal to the observer with the compelling authority of the masterpieces just mentioned, and all show great diversity both in conception and treatment, there are certain outstanding characteristics which may fairly be taken to represent the features of Augustus as they were in the flesh. These are a broad forehead with massive flatly arched skull, brows clear cut, angular, and drawn together in a slight frown between the eyes,<sup>2</sup> nose slightly aquiline, its profile drawn in slightly both above and below the bridge,<sup>3</sup> a nobly and delicately formed mouth, a regularly

<sup>&</sup>lt;sup>1</sup> Brunn-Bruckmann, op. cit. pl. 45.

<sup>&</sup>lt;sup>2</sup> Cf. Suetonius, Div. Aug. 79, . . . "supercilia coniuncta."

<sup>&</sup>lt;sup>3</sup> Cf. Suetonius, loc. cit. "nasum et a summo eminentiorem et ab imo deductiorem."

modelled, deeply grooved chin coming forward to the perpendicular plane of the lips, thin cheeks, ears slightly projecting, hair abundant and curling and arranged across the forehead and before the ears in gracefully curved locks which, in spite of their rather negligent and apparently fortuitous disposition, nevertheless recur in a scheme which remains practically unchanged throughout the whole series of Augustan portraits. The general expression is serious, somewhat cold, perhaps, but often, when relieved by a gesture or a turn of the head, is imperious and majestic. 4

A glance at Plates V. VI. and VII will satisfy the reader that this description is applicable almost word for word to the Corinthian Augustus. Yet two objections may be urged, the first and most important of which is that the nose of the Corinthian head is obviously not aquiline; in fact, when seen in profile (Plate VII) it appears almost straight, the indentations above and below the bridge being scarcely perceptible. Analogies are to be found for this, however, in several well authenticated portraits. The second objection—of minor importance—is the comparative fullness of the cheeks and the general softening of the lower part of the face, a treatment which while detracting somewhat from the individuality of the portrait is clearly idealistic in purpose. It is this, of course, which explains the classic line of the nose, and here we see carried almost to excess that tendency to soften and idealize which is the most outstanding characteristic of the portrait as a whole. Any lingering doubt as to the authenticity of the work is finally resolved by a study of the arrangement of the hair. As already indicated, this one trait furnishes. perhaps, the most trustworthy criterion of identification throughout the whole series of portraits of Augustus; in fact it often

<sup>&</sup>lt;sup>1</sup> Cf. Suetonius, loc. cit. "mediocres aures."

<sup>&</sup>lt;sup>2</sup> Cf. Suetonius, loc. cit. "capillum leviter inflexum et subflavum."

<sup>&</sup>lt;sup>8</sup> Cf. Suetonius, loc. cit. . . . "quamquam et omnis lenocinii neglegens et in capite comendo tam incuriosus, ut raptim compluribus simul tonsoribus operam daret."

<sup>&</sup>lt;sup>4</sup>Cf. Suetonius, loc. cit. . . . "Vultu erat vel in sermone vel tacitus . . . tranquillo serenoque. . . . Oculos habuit claros ac nitidos, quibus etiam existimari volebat inesse quiddam divini vigoris, gaudebatque, si qui sibi acrius contuenti quasi ad fulgorem solis vultum summitteret."—The foregoing description is drawn largely from Bernoulli, op. cit. II, 1, pp. 55–56.

<sup>&</sup>lt;sup>5</sup> E.g., nude statue in Vatican, Bernoulli, op. cit. II, 1, p. 29, No. 13, pl. III; toga-clad statue in Vatican, Bernoulli, op. cit. II, 1, p. 31, No. 18, "Der Nasenrücken ist von gleichmässiger Breite, im Profil unmerklich gebogen."

happens that, in the case of an attribution otherwise extremely doubtful, the appearance of the characteristic Augustan arrangement of the hair across the forehead is sufficient to clinch the argument. In the present instance, though not strictly necessary for the purpose of identification, it may prove of interest to make a few comparisons in this sense with certain other well known portraits of the emperor.

We begin with the Prima Porta Augustus and compare our PLATE V with Bernoulli, op. cit. II, 1, pl. I. The same full curling locks are at once apparent, and on closer examination it is evident that the scheme of arrangement is identical, the main parting falling to the left of the centre of the forehead which is marked by a heavy lock curving slightly to the right. left of the parting two broad, flat locks scarcely separated one from another pass across the brow to the left temple in an almost unbroken line. To the right the arrangement is more varied. Here again are two locks, but freely and distinctly treated, each in high relief and curling sharply back toward the middle of the forehead: the forward-curving masses in front of the ears are in each case identical. It should be noted in passing, however, that, from the point of view of artistic method and conception, the treatment of the hair in the two works is very different; in the Prima Porta head the locks are plastic, crisp, more individual in character, whereas in the Corinthian Augustus the impression is rather that of generalization,—the locks seem heavy, stiff, schematic. In fact the difference is exactly what might be expected between the work of an artist who had, perhaps, seen and studied his subject in person, and that of a sculptor working from a formal model or canon. Other portraits in which appears the characteristic Augustan "Stirnhaar" are: 1. A head in the Capitoline Museum.<sup>2</sup> 2. A nude statue in the Vatican,<sup>3</sup> 3. A toga clad -statue in the Vatican, Sala a Croce Greca, 4. A bronze head in the Museo Profano of the Vatican, 5. A bust in Munich. 6 list could be greatly extended if further proof were desired.

The question at once arises as to the explanation of the remarkable fixity and persistence of a feature in itself so palpably for-

<sup>&</sup>lt;sup>1</sup> Cf. Bernoulli, op. cit. II, 1, p. 53.

<sup>&</sup>lt;sup>2</sup> Cf. Bernoulli, op. cit. II, 1, p. 23, No. 2, fig. 1.

<sup>&</sup>lt;sup>3</sup> Cf. Bernoulli, op. cit. II, 1, p. 29, No. 13, pl. III.

<sup>&</sup>lt;sup>4</sup> Cf. Duruy, op. cit. III, p. 725 cut.

<sup>&</sup>lt;sup>5</sup> Cf. Bernoulli, op. cit. II, 1, pl. IV.

<sup>&</sup>lt;sup>\*8</sup> Cf. Brunn-Bruckmann, op. cit. pl. 45.

tuitous and ephemeral, a characteristic which appears practically unchanged not only in the portraits of Augustus in his prime, but even in those of his youth and childhood. Up to the present time no attempt has been made to answer this question; in fact it has not been explicitly formulated.<sup>2</sup> It seems quite logical to suppose that a "canon," if such it may be called, was established by an early and authoritative work which doubtless received the official sanction of Augustus himself. This assumption, however, goes but part way. Granted the establishment of a type in Rome shortly after the accession of Augustus to power, how was this spread throughout the length and breadth of the empire, from Gaul and Spain on the west to Greece and Egypt on the east?3 Obviously not by the exportation from Rome of finished works of sculpture.—a procedure not only improbable in itself but disproved by the clearly local character of the material and workmanship of the great majority of portraits discovered outside the immediate vicinity of Rome. It seems highly probable, therefore, that the type was spread abroad by the official exportation of clay or waxen imagines, somewhat like those commonly displayed at funerals.4 the very purpose of which was to assure iconographic uniformity in whatever province or district an imperial portrait should be set up. The foregoing is too much in the nature of a digression to permit of its being treated at length in the present context. I shall revert to it, however, in my discussion of the remaining portraits of the Corinthian group.

Though not a work of the first order, the Corinthian Augustus claims a high rank among the more idealized portraits of the emperor, the most striking characteristic of which is a subtle quality of agelessness, an impression of youth in maturity combined with Olympian dignity and calm. This is further accentuated by a certain breadth of conception, as well as the softening of the characteristic frown, and the lessened relief of the cheekbones. The greater regularity of the line of the nose is especially noticeable as is also the broader handling of the mouth and chin

<sup>&</sup>lt;sup>1</sup> Cf. Bernoulli, op. cit. II, 1, pl. II.

<sup>&</sup>lt;sup>2</sup> Cf. Bernoulli, op. cit. II, 1, p. 57–58,—"Sollte der Haarwurf und die Haartracht des Augustus wirklich diesen stabilen Charakter gehabt haben? Oder beruht die Gleichartigkeit vielmehr auf dem Bestreben der alten Künstler, an dem einmal erfundenen Typus auch in diesen scheinbaren Zufälligkeiten festzuhalten?"

<sup>&</sup>lt;sup>3</sup> Cf. the bronze head of Augustus from Meroe, published by Garstang and Bosanquet in *Ann. Arch. Anth.* IV, 1911, pp. 45–52, 66–71.

<sup>&</sup>lt;sup>4</sup> Cf. Dio, LVI, 34, for mention of such an image of Augustus.

and of the surface modelling generally. Although the portraits embodying the idealistic conception of the emperor are fairly numerous, the following appear the more important and afford the closest analogies to the type of the Corinthian Augustus:—

- 1. The so-called Caligula in the Galleria delle Statue of the Vatican. to be compared particularly with our Plates V and VII. This shows by far the closest affinities in conception, type of face, and technique to the Corinthian portrait, and the resemblance feature for feature is very striking. Note the same broadly ideal handling of the lower half of the face, particularly the mouth and chin, the full modelling of the cheek and forehead, and the grave and candid expression of the eves; even the hair, though sparser and less rigid, shows the same stylistic peculiarities, while the characteristic turn of the head—here reversed—produces the same effect of individuality and charm. One might almost suppose that the work were by the same hand,—certainly under the influence of the same school. It is to be noted further that this portrait produces, as does that of Corinth, an impression of maturity and judicial calm in general lacking in the majority of portraits of Augustus, which are characterized rather by youthful concentration and immediacy.
- 2. A bust in the Glyptothek at Munich.<sup>2</sup> Here the analogy is less striking, since the conception though ideal is more individualized; while the modelling appears very subtle it is also more virile, and the hair is distinctly impressionistic in treatment. The pose of the head is very like.
- 3. The head in the Chiaramonti Museum, Rome.<sup>3</sup> To be noted particularly is the pose of the head and neck, similar broad handling of the mouth and chin, and general tendency toward idealization.
- 4. The mail clad portrait in Berlin.<sup>4</sup> This shows close resemblance in pose of head and in profile (cf. our Plate VII), as well as in the general idealistic conception.
- 5. A bust in the Louvre.<sup>5</sup> The features are strongly idealized and the work shows close stylistic affinities to the Munich bust (No. 2, above).

<sup>&</sup>lt;sup>1</sup> Bernoulli, op. cit. II, 1, pl. III, p. 29, No. 13.

<sup>&</sup>lt;sup>2</sup> Cf. Brunn-Bruckmann, op. cit. pl. 45; also Bernoulli, op. cit. II, 1, fig. 9.

<sup>&</sup>lt;sup>3</sup> Cf. Bernoulli, op. cit. II, 1, fig. 3.

<sup>&</sup>lt;sup>4</sup> Cf. Berlin Winckelmann's Programme, 1868, pl. 1.

<sup>&</sup>lt;sup>5</sup> Cf. Duruy, op. cit. III, p. 686, cut.

- 6. The bronze head from Meroe. The difference between bronze and marble technique does not permit of exact comparison, and the head is here mentioned only as a remarkable example of the ideal conception of the Augustan features so skillfully embodied in the Corinthian portrait. Compare with our Plate VI.
- 7. A bronze head in the Vatican.<sup>2</sup> This also shows ideal treatment. Compare with it Plate VI.

From the foregoing comparisons it is evident that the Corinthian statue is worthy of a place of honor in the great series of Augustan portrait heads. We have now, however, to consider briefly the figure as a whole.

When once the observer becomes aware of the considerable reduction in the height of the figure occasioned by the loss of feet and legs from mid-shin downwards and makes due allowance for the apparent changes in proportion thereby effected, he realizes that the most outstanding characteristics of the entire figure are its slim and graceful proportions, breadth and squareness of shoulder, and powerful rendering of neck and throat. In fact, were the bodily forms divested of the clinging folds of the toga they would be found to vary little from the slender and athletic canon of Lysippus as interpreted and modified by Pasiteles and Stephanus.<sup>3</sup> Furthermore, the impression of neo-Atticism is much heightened by certain mannerisms in the handling of the drapery,—I refer particularly to the straight schematic folds which depend from the left forearm, the modelling of the tunic across the chest and on the right shoulder, and finally the remarkable way in which the toga clings to the thighs and lower limbs, producing as it were the illusion of transparency despite the obvious weight of the drapery itself. A unique feature is the sharp loop—the so-called sinus4—formed below the right knee by the uniformly narrow and rather "stringy" fold which falls from behind the right shoulder and passes diagonally upward across the lower part of the body. In the great majority of statuae togatae this sinus receives a totally different treatment.5

 $<sup>^1</sup>$  Cf. R. Delbrück, Bildnisse Römischer Kaiser, pl. V (Berlin, 1914); also A. J. A. 1912, p. 114, fig. 1.

<sup>&</sup>lt;sup>2</sup> Cf. Bernoulli, op. cit. II, 1, pl. IV.

<sup>&</sup>lt;sup>3</sup> Cf. statue of a youth by Stephanus in the Villa Albani, Brunn-Bruckmann, op. cit. pl. 301; University Prints, pl. 321.

<sup>&</sup>lt;sup>4</sup> Cf. Iwan von Müller, *Hdbk. der Klass. Alt.-Wissensch.*, volume on *Die Röm. Privataltertümer*, by H. Blümner, p. 212 (ed. 1911); cf. also Smith's *Dict. of Greek and Roman Antiq.*, s.v. toga.

<sup>&</sup>lt;sup>5</sup> Cf. the toga clad figures listed in the Appendix.

It is well known that Augustus was singularly attached to the toga as the Roman national dress and that he strove to restore it to its former position of honor in the use of everyday life. Yet of the toga clad statues of Augustus<sup>2</sup> comparatively few are authentic, and of these the majority represent him with head veiled in priestly fashion, a method by which at least the emperor was distinguished from the common run of senatorial and municipal statues; all the extant togatae of Augustus in which this veiling is lacking have heads either inset, or foreign to the torso, while on the other hand most if not all of the veiled busts belonged originally to effigies togatae.<sup>3</sup>

Our study of the Corinthian Augustus is fittingly concluded by a discussion of the probable date of the work, and in this our conclusions must depend upon internal rather than external evidence, inasmuch as the data furnished by the excavation of the statue are not sufficiently exact for our purpose. For instance, the only certain inference to be drawn from the ruins of the basilica in which the portrait was discovered is that the building was erected not long after 46 B.C. on the foundations of an earlier Greek structure, and that it was destroyed by earthquake in the late Imperial or early Byzantine period. What, then, are the criteria?

The most obvious is the apparent age of Augustus as represented, yet this is somewhat vitiated by the circumstance of the ideal and "ageless" character of the portrait. The emperor appears before us in his prime, or, perhaps, slightly beyond it; but, nevertheless, due to the generalization of the modelling, the ideal fulness and maturity of the forms, it is difficult if not impossible to decide whether he should be placed in the late thirties, the late forties, or even in the fifties. As a matter of fact, however, but two portraits are known in which Augustus is certainly represented as more than fifty years of age, 4—and in the great majority of cases the sculptor seems to have set the upper limit at forty-five. Beyond this the emperor is ageless and serene as the immortal gods. So far, then, as one can judge from the features them-

<sup>&</sup>lt;sup>1</sup> Cf. Suetonius, Div. Aug. 40.

<sup>&</sup>lt;sup>2</sup> According to Pliny, N. H. XXXIV, 17, vid. Overbeck, Schriftquellen, 2350, portrait statues were classified by the Romans in two main groups, togatae effigies, and statuae Achilleae.

<sup>&</sup>lt;sup>3</sup> Cf. Bernoulli, op. cit. II, 1, pp. 69-70.

<sup>&</sup>lt;sup>4</sup>Bust in the Vatican, Bernoulli, op. cit. II, 1, p. 30, No. 14, fig. 5: bronze bust in the Louvre, Bernoulli, op. cit. II, 1, p. 37, No. 57, fig. 7.

selves, the statue may have been set up at any time between ca. 25 B.C. and 14 A.D., or, for that matter, even after the death of Augustus.

A more reliable criterion is perhaps seen in the veiling of the head, yet even here there is considerable diversity of opinion among authorities as to the interpretation of this interesting feature. It has been variously connected with the office of Pontifex Maximus, the anotheosis of the emperor, and a form of consecration in which the genius of the emperor takes an important part. The first hypothesis seems to be destroyed by the fact that, although Augustus did not assume the pontificate until 12 B.C. when he was fifty-one years old, the features in the case of the majority of his veiled portraits are those of a young man. The theory of the anotheosis also presents difficulties, inasmuch as a clear example of the indication of deification merely by the veiling of the head is not to be found in the period of the Julian emperors; and the deified emperors always wear the raved crown in addition to the veil.<sup>2</sup> Finally, there seems even less ground for the supposition that the veil was restricted to representations of the genius of the emperor. There is no doubt that the motive of the veil, though in no way the usual or only method of representation of the imperial genius, was yet here and there applied to it. On the other hand the costume seems to have been the rule for the ordinary genii familiares, who also invariably have the cornucopia as attribute. If, therefore, the latter is lacking, we cannot safely conclude that a genius is intended.3

It seems, then, that we are forced to the conclusion that, in the case at least of Augustus, the veiling of the head refers either to some subordinate priestly office, or that the emperor is represented merely in the general function of a person officiating at a sacrifice. Since, however, the portrait at Corinth represents Augustus as a man of mature years we may at least be permitted the assumption of the date of his entering upon the pontificate, 12 B.C., as a probable terminus post quem for the work under discussion. Furthermore, if the rayed crown is to be considered at this period as a mark of deification, the lack of it in the case of a portrait of an emperor known to have been deified ought to indicate

<sup>&</sup>lt;sup>1</sup> Visconti, Museo Pio-Clem. II, p. 292.

<sup>&</sup>lt;sup>2</sup> Cf. Divus Augustus on the well-known Paris Cameo and the Vienna Onyx.

<sup>&</sup>lt;sup>3</sup> For a fuller discussion of this entire topic see Bernoulli, op. cit. II, 1, pp. 69–72.

that the work was completed before the death of the personage represented. Thus we have the year of Augustus's death as a probable terminus ante quem. It is between these two dates, 12 B.c. and 14 A.D., that I believe the Corinthian portrait should be placed, and between these rather wide limits we shall leave it for the present. I expect, however, from the study of the other members of the group to be able to reduce the margin considerably.<sup>1</sup>

E. H. SWIFT.

#### PRINCETON UNIVERSITY.

<sup>1</sup> The following portraits of Augustus may be added to the number of those already listed by Bernoulli:

1. The Corinthian Augustus.

2. A portrait statue found in Rome. (R. Arch. XVI, 1910, p. 162, from Journal des Débats, June 26, 1910; A.J.A. 1911, p. 98; published fully by L. Mariani in B. Com. Rom. XXXVIII, 1910, pp. 97–117; 3 pls., 6 figs.)

3. Augustus as Mercury, formerly called Germanicus, statue in Louvre. (J. Six. R. Arch., 5th series, IV, 1916, p. 257; 2 figs.; A.J.A. 1917, p. 461.)

4. Marble head in the Boston Museum. (B. Mus. F. A. V, 1907, pp. 1-3; figs. 1-4; A.J.A. XI, 1907, p. 369. This is the head from the Despuig collection; idealistic type.)

5. Marble head in the Boston Museum. (S. N. Deane, *Thirty-first Annual Report* of B. Mus. F. A. 1906, pp. 55–61; A.J.A. XI, 1907, p. 369, fig. 9.)

6. Colossal bronze head discovered at Meroe, now in British Museum. (Ann. Arch. Anth. IV, 1911, Garstang pp. 45–52, and Bosanquet, pp. 66–71; 5 plates; Ippel, Ath. Mitt. XXXVI, 1911, pp. 361–363; cf. also Delbrück, Bildnisse Röm. Kaiser, taf. V.)

7. Augustus as Pontifex Maximus, relief from Ara Pacis. (Studniczka, Abh. Sächs. Ges. XXVII (No. 26), 1909, pp. 899–944; 7 pls.; 5 figs.)

8. Roman relief with two figures, one apparently of Augustus, in the Museum of University of Pennsylvania. (Paper read by Professor Bates before the Archaeological Institute of America, December 1911, A.J.A. 1912, p. 101.)

As to the material and scale of the portraits of Augustus (cf. Bernoulli, op. cit. II, 1, pp. 76–78). There may now be added to Bernoulli's list five more in marble, two reliefs, and one in bronze. The Corinthian portrait conforms to the great majority of the extant portraits of Augustus in scale, since it is rather more than life size.

#### APPENDIX

List of references to statues of type similar to the Corinthian Augustus, with short discussion of the more important.

Draped Statues of Augustus:

1. In Louvre. Reinach, op. cit. I, p. 137, pl. 271, No. 2327; Bernoulli, op. cit. II, 1, p. 36. No. 51.

Same general pose, head unveiled, weight on right leg. Bernoulli says. "Der Kopf ist aufgesetzt und der Statue fremd."

2. In Louvre. Reinach, op. cit. I, p. 139, pl. 275, No. 2332; Bernoulli, op. cit. II, 1, p. 36, No. 53; Duruy, op. cit. IV, p. 90 cut.

Same general pose, head unveiled, weight on right leg, drapery differently treated and more voluminous. Bernoulli says "Erst hier wurde ihm an Stelledes nicht passenden Kopfes ein Augustuskopf aufgesetzt."

3. In Florence, Galleria dei Uffizi. Reinach, op. cit. I, p. 561, pl. 914, No. 2333; Bernoulli, op. cit. II, 1, p. 34, No. 40; Dütschke, Ant. Bildw. III, No. 40.

Weight on left leg, face to left, head unveiled, toga draped over right shoulder and arm. (This cut must have been reversed in process of reproduction, since the toga is never thus worn.) Bernoulli says "Der Kopf aufgesetzt, aber wohl antik."

4. In Madrid, Royal Museum. Reinach, op. cit. I, p. 563, pl. 916 A, No. 2337 A; Hübner, Ant. Bildw. zu Madrid, No. 78; Bernoulli, op. cit. II, 1, p. 39, No. 63.

Weight on right leg, face to right and head veiled, toga draped over left shoulder and horizontal left forearm, drapery more freely treated; veil passes just behind ears causing them to project. Bernoulli says "Der Kopf aufgesetzt, aber zugehörig . . . mit abstehenden Ohren . . . Augustus als junger Mann."

5. In Rome, Vatican. Reinach, op. cit. I, p. 565, pl. 920, No. 2337; Helbig, Führer, No. 319; Bernoulli, op. cit. II, 1, p. 31, No. 18; Duruy, op. cit. III, p. 725, cut; Overbeck, Gesch. der Gr. Plastik, II, fig. 234 g.

Weight on right leg, the left slightly to rear, face to right, head veiled, right forearm extended holding patera; the drapery, and pose of body and head are remarkably like.

6. In Rome, Vatican, Sala Rotunda. Reinach, op. cit. I, p. 565, pl. 920, No. 2338; Helbig, op. cit. No. 310; Bernoulli, op. cit. II, 1, p. 31, No. 16; Alinari photograph, No. 6580; Duruy, op. cit. III, p. 771, cut.

The so-called "Genius of Augustus." In pose almost identical with No. 5-above; patera in right hand and cornucopia on left arm, drapery is voluminous. Bernoulli says "In dem Händen Schale und Füllhorn, die erstere neu." Helbig adds that the work is correctly restored.

7. In Cataio. Bernoulli, op. cit. II, 1, p. 35, No. 46; Dütschke, op. cit. V, No. 760.

Bernoulli says "Toga-statue, with back of head veiled, in the hands a gilded patera and a large gilded lituus (both restored). The head appears to memodern, and not Augustus, though Dütschke takes it for antique."

8. In Borghese Mus., Rome. Reinach, op. cit. II, p. 578, No. 8; Nibby, Mon. Borgh. 10; Bernoulli, op. cit. II, 1, p. 32, No. 25; Helbig, op. cit. No. 896. Weight on left leg, ears pushed forward by veil, patera in right hand, drapery

and pose of arms and head almost identical. Helbig says "Der Kopf aufgesetzt" aber antik und zugehöria."

Draped figures in the pose of Augustus:

- In Royal Museum, Turin. Reinach, op. cit. I, p. 451, pl. 768 B, No. 1907 A.
- "Prêtre voilé"; weight on right leg, the left to rear, face to front. Veil conceals left ear but pushes the right forward; general scheme of drapery and sinus much the same.
- In Royal Museum, Turin. Reinach, op. cit. I, p. 451, pl. 768 B, No. 1908.
- "Prêtre voilé"; weight on left leg, face a bit to right, drapery very similar to the above but more voluminous.
- 3. In Museo Pio-Clementino, Rome. Reinach, op. cit. I, p. 451, pl. 768 B, No. 1909. Helbig, op. cit. No. 329; Friedrichs-Walters, Gipsabg. zu Berlin, No. 1677; Alinari photograph, No. 6642; Brunn-Bruckmann, Denkmäler, pl. 169.
- "Prêtre voilé"; weight on right leg, face slightly to right, patera in extended right hand, and the pose almost identical; drapery and veil are much fuller and very differently treated.
  - 4. In Naples Museum. Reinach, op. cit. I, p. 552, pl. 900 C, No. 2284 D.
- "Statue municipale"; weight on left leg, face to right, right arm extended forward at elbow; drapery almost identical save that the sinus is above knee and not so sharp.
- 5. In Mattei Collection, Rome. Reinach, op. cit. I, p. 558, pl. 910, No. 2318 C; Bernoulli, op. cit. I, p. 157, No. 17; Weisser, Bilder-Atlas, taf. 39, 9; Duruy, op. cit. III, p. 228 cut.

Caesar; weight on left leg, face to right, right arm extended, drapery much the same but lacks the sharp *sinus* below the knee.

6. In Mattei Collection, Rome. Reinach, op. cit. I, p. 579, pl. 940 A, No. 2398 B; Bernoulli, op. cit. II, 1, p. 394; Mon. Matth. I, 83.

Head and veil modern. Weight on right leg, patera in right hand, drapery rather similar, with a heavy sinus just below the knee.

7. In Capitoline Museum, Rome. Reinach, op. cit. I, p. 583, pl. 945, No. 2422; Bernoulli, op. cit. III, p. 108, No. 2; Bottari, III, 55; Righetti, I, 116.

Hadrian. Weight on left leg, head veiled and ears concealed, extended right forearm with patera.

8. Coke Collection, England. Reinach, op. cit. I, p. 589, pl. 957, No. 2459 A; Michaelis, Anc. Marbles in Gt. Brit., Holkh. 31; Bernoulli, op. cit. III, p. 207, No. 11.

Pose and drapery very similar, but *sinus* is rounder and falls above the knee; drapery more ample.

9. In Aquileia. Reinach, op. cit. II, p. 579, No. 7; Leipzig. Illus. Zeitung, Feb. 1884, p. 136; Bernoulli, op. cit. II, 1, p. 154, No. 55.

Tiberius. Weight apparently on right leg, drapery and pose of arms very like, head veiled and ears pushed forward.



## ARCHAEOLOGICAL DISCUSSIONS<sup>1</sup>

# SUMMARIES OF ORIGINAL ARTICLES CHIEFLY IN CURRENT PUBLICATIONS

SIDNEY N. DEANE, Editor Smith College, Northampton, Mass.

## GENERAL AND MISCELLANEOUS

A Handbook of Archaeology for Travellers.—The British Museum has published a small handbook entitled How to Observe in Archaeology: Suggestions for Travellers in the Near and Middle East (London, 1920; 103 pp.; cuts). An introductory chapter by G. F. Hill is followed by a chapter on archaeological method by W. M. Flinders Petrie, describing the necessary material outfit for archaeological work, and dealing with methods of recording discoveries, drawing and copying, photography, etc. The other chapters give summary accounts of the kinds of antiquities which may be found in Greece (J. P. Droop), Asia Minor (J. G. C. Anderson and J. L. Myres), Cyprus (J. L. Myres), Central and North Syria (D. G. Hogarth), Palestine (R. A. S. Macalister), Egypt (W. M. Flinders Petrie), and Mesopotamia (H. R. Hall). The illustrations are line drawings of types of pottery and other small antiquities, and tables of alphabets and hieroglyphs. An appendix gives the laws of the several countries of the Near East relating to the excavation and exportation of antiquities.

Classical Antiquities in the University of Pennsylvania Museum.—A recent number of Mus. J. (XI, 1920, pp. 3–50, 4 pls.) is devoted to a general description of the Mediterranean collections of the Museum, prepared by Eleanor F. Rambo. It includes descriptions of the Cretan and Cypriote antiquities, Greek and Italic vases, Etruscan pottery, bronzes, etc., ancient glass, classical sculptures, and reproductions of ancient art.

Antique Glass.—A brief discussion of the various kinds of antique glass and its uses is written by R. Paribeni in Rass. d'Arte, VII, 1920, pp. 154–157 (8 figs.).

Bronze Harness-Ornaments.—In B. Soc. Ant. Fr. 1919, pp. 206–208, is a communication from Georges Cumont regarding a series of puzzling objects of bronze published by A. Héron de Villefosse: sockets of bronze flanked by

<sup>1</sup>The departments of Archaeological News and Discussions and of Bibliography of Archaeological Books are conducted by Professor Deane, Editor-in-charge, assisted by Professor Samuel E. Bassett, Professor C. N. Brown, Miss Mary H. Buckingham, Dr. T. A. Buenger, Professor Harold R. Hastings, Professor Elmer T. Merrill, Professor Lewis B. Paton, Professor A. S. Pease, Professor S. B. Platner, Professor John C. Rolfe, Dr. John Shapley, Professor A. L. Wheeler and the Editors, especially Professor Bates.

No attempt is made to include in this number of the JOURNAL material published after December 31, 1920.

For an explanation of the abbreviations, see pp. 108-109.

two bronze rings. Franz Cumont and other scholars have thought that the two flanking rings were designed for the passage of reins. Georges Cumont objects that the rings show no sign of wear within; that they sometimes have lateral openings which would make them impracticable for the use suggested; and that they are often irregular in shape. He thinks the objects in question were simply ornaments of the harness, and compares with them a harness-ornament which appears in old prints representing Neapolitan scenes of the early nineteenth century.

The Magic of Solomon.—In B. Com. Rom. XLVI, 1918, pp. 85–100, G. Calza discusses the magic art of Solomon in the Graeco-Roman literary and artistic tradition.

Manuscripts Collected by Minoides Mynas.—In C. R. Acad. Insc. 1919, pp. 308–311, H. Omont adds some notes to a former account of the discovery of Greek manuscripts at Mount Athos and in the Orient by Minoides Mynas, 1840–1855 (see Mém. Acad. Insc. XL, pp. 337–421). Through a recent gift the following manuscripts from Mynas' collection have been added to the Bibliothèque Nationale: (1) a fragment of the tenth century containing the maritime law of Rhodes; (2) a fifteenth century copy of the Epanagoge Aucta, a manual of Graeco-Roman or Byzantine law; (3) a diary of Mynas' visits to Mount Athos, with description of and transcripts from the manuscripts which he had examined.

The Origin of the Semitic Alphabet.—In J.R.A.S. 1920, pp. 297–303, A. H. Sayce discusses certain non-Egyptian graffiti discovered by Petrie at the traditional Sinai. The characters are Egyptian, but are not used with Egyptian values. They are usually written in vertical columns, and are read from right to left. Most of the phonetic values have been determined. They are the initial letters of the Semitic words that correspond to the Egyptian hieroglyphs. The use of the Egyptian hieroglyphs as alphabetic letters suggested to some Semitic genius the employment of them to represent the initial sounds of the Semitic words with which they corresponded. Naturally more than one hieroglyph could be employed for this purpose in the case of each letter, and accordingly we find at Sinai two different pictographs representing the letter l, while the South Arabian alphabet when compared with the Phoenician not only shows additional characters needed to express sounds that had been lost further north, but also variant forms of the same letter. These Sinaitic inscriptions probably belong to the period of the eighteenth dynasty.

Silver in Prehistoric and Proto-Historic Times.—In Archaeologia, LXIX, 1920, pp. 121–160 (14 figs.) W. Gowland discusses the mining, smelting and general use of silver in early times. It is not found in Europe until the Bronze Age, and objects of silver are rare north of the Alps as late as the epoch of La Tène. In Babylonia it was in use as a monetary standard as early as Manishtusu of Kish (ca. 4500 B.c.). A silver vase dedicated by Entemena, king of Lagash, dates from the same period. In Egypt silver was still rare in the twelfth dynasty, though known in late prehistoric times. It was found in the First City at Troy, and in great abundance in the Second City, which is supposed to date from about 2500 to 2000 B.c. In Crete very little silver has been discovered, the earliest objects dating from Middle Minoan times. Many silver vessels were found in the shaft graves at Mycenae; one in Grave I was 2 ft. 6 in. high and 1 ft. 8 in. in diameter. The silver used at Mycenae, like

that at Troy, was obtained by cupellation from argentiferous lead, as analysis proves. The Mycenaeans probably obtained it from Laurium by surface workings. These mines had ceased to be productive in Homeric times, but as a result of discoveries made early in the fifth century B.C. they were reopened and operated until the time of Strabo. Since 1864 they have again been worked. They do not yield true silver ore, but galena and cerussite. so that lead is the first product of the smelting. Remains of the furnaces used by the Greeks at Laurium have been found in sufficient number to make a restoration certain. The Hittites obtained silver from the Taurus range where there are numerous ancient workings. Etruria a silver fibula has been found dating from 1000-900 B.C., but there is no evidence of mining there, and most of the silver objects which have been brought to light were probably imported.

The Ustinow Collection. - In Videnskapsselskapets Skrifter, II. Hist.-filos. Klasse, No. 3, pp. 3-28 (29 figs.) F. Poulsen discusses selected sculptures from the collection in Christiania of the late Baron Ustinow, for many years a resident of Jaffa: (1) a primitive bronze statuette of Syrian origin, to be dated in the ninth or eighth century B.C.: (2) a marble male torso, 0.86 in height, in the style of Critius and Nesiotes: (3) a fragmentary head of Zeus in marble, resembling the Serapis of Bryaxis; (4) a marble bust of the aged Sophocles, in the form of a herm (Fig. 1), the original of which is to be dated early in the fourth century; not, however, a literal portrait; (5) a marble bust of Olympiodorus, also of herm shape (Fig. 2), from an original of



FIGURE 1.—AGED SOPHOCLES: CHRISTIANIA.

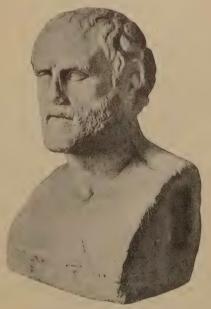


FIGURE 2.—OLYMPIODORUS: CHRISTIANIA.

the early Hellenistic period; (6) a Roman child's head, in marble, the coiffure of which indicates the dedication of the child to Isis (Fig. 3).

Wooden Barrels of the Roman Period.—In R. Ét. Anc. XXII, 1920, pp. 207–209 J. Breuer describes fragments of barrels found on the site of the colony of Olpia Noviomagus (Nymegen), in Holland, and gives a list of sites in Scotland, Germany, and Holland where other evidence of the Roman manufacture of barrels has been found.

Ritual Significance of Gestures.—In R. Hist. Rel. LXXX, 1919, pp. 30–85, W. Deonna, maintaining that many attitudes of divine figures in late classical art which have usually been interpreted as genre motives are really of religious



Figure 3.—Portrait Head of a Child: Roman: Christiania.

origin, examines the associations of the gesture of the raised arms, and concludes from a study of Egyptian. Babylonian, Hittite, Greek. and Roman monuments that this gesture is especially connected with deities of light, and was originally motivated by some actual burden supported by the arms. Later it was adopted by worshippers of these deities as an attitude of adoration. It is frequently accom-

panied by cosmic symbols, and is found in representations of those deities of whom Apollo and Aphrodite are the counterparts among the Greeks. Attitudes in which only one hand is raised are also found to have religious meaning and are common to Apollo and Aphrodite as luminary deities.

The Problem of Totemism.—In R. Hist. Rel. LXXX, 1919, pp. 86–153, 193–270, A. VAN GENNEP continues his studies on the nature and origin of totemism. In sections XXI–XXV he discusses totemism in Northern Africa in ancient and modern times, and its relation to totemism in other parts of Africa. In XXVI–XXX he deals with the general problem of totemism, with much reference to the beliefs of North American Indians, and gives a table of the several theories on this problem, followed by a brief exposition of his own view, which he describes as classificatoire, parentale, et territorialiste (sociale).

What Is Soma?—In J.R.A.S. 1920, pp. 349–351, E. B. HAVELL throws new light on the plant from which the soma, or sacred drink of the Vedas was manufactured. The Vedas state that the plant resembled cows' udders, that it was like the fingers of a man's hand, that it was tawny in color, and that it grew on the mountains. The Brahmanas state that  $d\bar{u}b$  and kusha grass might be substituted for it. In view of these facts it is probable that the soma plant was  $Eleusine\ coracana$ , or  $r\bar{a}gi$ , the common millet still used in the eastern Himalayas for making the intoxicating drink known as marua.

## **EGYPT**

Egyptian Antiquities in the Museo Nazionale, Rome.—In Ausonia, IX, 1919, pp. 1–10 (pl.; 5 figs.) G. Farina describes some Egyptian objects in the Museo Nazionale, including (1) the upper part of a statue in dark granite, representing a king of the Middle Empire; (2) a fragment of a granite relief, representing gods and religious ceremonies, Ptolemaic; (3) an anthropoid mummy-case, Ptolemaic; (4) a limestone capital, quadruple campaniform, Ptolemaic; (5) a fragment of a statuette of a seated lady, green granite, Ptolemaic; (6) a fragment of a statue of a kneeling figure, in serpentine, Roman date; (7) a statuette of a woman seated on a throne, basalt, Roman date; (8) a statuette of Bes, black basalt, Roman date; (9) a statue of a Pharaoh in black basalt, Roman date.

Egyptian Coinage of the Ptolemaic and Earlier Period.—In R. Ital. Num. XXXIII, 1920, pp. 5–70, A. Segrè gives an account, dependent in large measure on the study of papyrus-documents, of the circulation and evaluation in Egypt and neighboring lands of Ptolemaic and pre-Ptolemaic coins. It is prefaced by a summary of the beginnings of coinage in the ancient world, and by a survey of actual Ptolemaic coins, the latter depending mainly on the well-known Greek work of Syoronos.

The Festival of Adonis.—In R. Ét. Gr. XXXIII, 1920, pp. 169–222, G. GLOTZ bases upon a fragmentary papyrus (Flinders Petrie Papyri, III, No. 142) and on Theocritus XV a detailed reconstruction of the program of the three days' festival of Adonis celebrated in Egypt under Ptolemy II. The cult of Adonis, organized in Alexandria by Arsinoe, was so successfully propagated by Philadelphus as a part of Egyptian religion that Adonis Osiris came to be regarded in late times as an Egyptian god imported into Phoenicia. The first day of the festival, the seventh of an unnamed month, was a day of joy, the one described by Theocritus; the second a day of mourning and abstinence; and the third a day of mysteries, in which the sacred pantomime of the resurrection of Adonis was performed at the deikterion.

A German Prophetess in Egypt.—An ostrakon from Elephantine, originally published by Dr. Schubart in Ber. Kunsts. XXXVIII, p. 328, is the subject of comment by T. Reinach in R. Ét. Anc. XXII, 1920, pp. 104–106. It contains the names of several officers and other functionaries attached to the staff of the prefect of Egypt. The most interesting of these is  $\beta a \lambda o \nu \beta o \nu \rho \gamma$ , described as  $\Sigma \dot{\eta} \nu o \nu \iota \sigma \iota \beta \dot{\nu} \lambda \lambda \alpha(\iota)$ . The reading should probably be  $\Sigma \dot{\epsilon} \mu \nu o \nu \iota$ . The prophetess Walburg apparently belonged to the same nation in the region of the Elbe as Ganna, the German prophetess mentioned by Dio Cassius (LVII, 5, 3). Her name recalls the Walpurgisnacht.

The Gnomon of the Idios Logos.—In Ber. Kunsts. XLI, 1920, pp. 72–90 (fig.) W. Schubart describes an important papyrus, of which he has already published a scientific text (Der Gnomon des Idios Logos, I, Der Text, Berlin, 1919). This document gives in detail the regulations by which the Idios Logos, as a branch of the financial administration of Egypt under the Romans, was governed. A complete translation, together with a commentary on the historical significance of this papyrus, is given.

## BABYLONIA AND ASSYRIA

The Tower of Babel.—The opinion is generally accepted that the tower mentioned in *Genesis*, xi is to be identified with the *ziqqurat*, or temple-tower, *E-temen-an-ki*, that stood in front of *E-sag-ila*, the temple of the god Marduk in Babylon. This view is contested by E. G. H. Kraeling, in *J.A.O.S.* XL, 1920, pp. 276–281, who identifies it rather with the temple-tower of Borsippa, anciently called *E-ur-imin-an-ki*, and now known as Birs Nimrud. His reasons are that this tower is described as unfinished by the J document in *Genesis*, which indicates that the story originated in the eleventh century B.C. Now there is no evidence that the tower of Babylon was unfinished at this period, while there is evidence from a boundary stone of Merodach Baladan I (1201–1150 B.C.) that at this time the tower of Borsippa had only four stages. Moreover, in the 137th fable of Hyginus it is said that Mercury multiplied languages and divided the nations. Mercury is Nabu, the god of Borsippa, and here the confusion of tongues, which *Genesis*, xi connects with the tower of Babel, is associated with the tower of Borsippa.

The Origin of the Kaunákēs.—In J.R.A.S. 1920, pp. 326–329, S. Langdon shows that the Greek garment called  $kaunák\bar{e}s$  is both in name and in form of Sumerian origin. The most ancient Sumerian statues are dressed in a woolen skirt so woven as to represent the locks of a sheep-fleece. This primitive garment ceased to be worn by the Sumerians themselves after the archaic period which ends with the dynasty of Akkad. Henceforth in pure Sumerian art we find the skirt worn only by deities. The Sumerian name was  $g\hat{u}$ - $\hat{e}n$  or  $g\hat{u}$ -an-na, which passed over into Semitic as  $guannak\hat{u}$ , the original of the Greek  $kaunák\bar{e}s$ . The Greek  $kaunák\bar{e}s$  was imported from Asia, and Aristophanes mentions Sardis and Ecbatana as the principal centres of its manufacture.

A Royal Treasure at Nippur.—In Mus. J. XI, 1920, pp. 133–139 (fig.) L. L(EGRAIN) publishes a tablet from Nippur in the Museum of the University of Pennsylvania describing a royal treasure of 125 objects of gold and precious stones stored at a place known as Ardi-Belit. The tablet dates from the fifth year of Nazimaruttash, ca. 1300 B.C.

A Sumerian Code of Laws.—In Mus. J. XI, 1920, pp. 130–132, V. S(CHEIL) translates three Sumerian tablets in the Museum of the University of Pennsylvania published by H. F. Lutz in Selected Sumerian and Babylonian Texts (see A.J.A. XXIII, 1919, p. 419). They are part of a code of laws which served as the source for the Code of Hammurabi. Three paragraphs have to do with land culture; two with buildings; two with slaves; two with the responsibility of hired men; and five with family affairs. Some of the sentences in Hammurabi's Code are servile translations into Babylonian of these Sumerian laws which are about a thousand years earlier.

The Sumerian Original of the Biblical Ellaser.—Ellaser in Genesis, xiv, 1 has been supposed to be identical with Larsa in Semitic Babylonian. The Sumerian name of this place is written ZA-ra- $\acute{a}r$ , but S. Langdon shows in J.R.A.S. 1920, p. 515, that the phonetic value of ZA is ila, so that the name should be read Ilarar. By dissimilation of the r this became Ilasar. The Biblical form of the name in Genesis, xiv, 1 is based directly upon the Sumerian rather than upon the later Babylonian form of the name, which proves the antiquity of Genesis, xiv.

The Kings of Genesis xiv.—In Z. Alttest, Wiss, XXXVI, 1916, pp. 65-73. F. M. T. Böhl, rejects the identification of Amraphel with Hammurabi, of Arioch with Rim-Sin (Eri-Aku?) and of Ellasar with Larsa, and attempts an entirely new chronological location of the chapter. Tid'al, King of Nations, in Genesis, xiv he identifies with Tudhalia, the sixth of the great Hittite kings. who was contemporary with Rameses II about 1250 B.C. Amraphelis not king of Babylon in Genesis, xiv but of Shin'ar, which is the same as Shanhar in the Amarna letters. This was the name of the old empire of Mitanni which once stretched far enough to include Babylon, but was not identical with Babylonia. The name Arioch occurs also in Dan. ii, 14 f. and Judith, i, 6, which suggests Persian affiliations. This recalls the fact that the Mitanni people, according to the documents discovered at Boghazkeui, worshiped the Arvan gods Mithra. Indra, and Varuna. Chedor-La'omer is a good Elamite name. Kudur-Laghamar. but he is not known as a contemporary of Hammurabi, and may well have been a predecessor of Shutruk-Nahunti I and his son Kudur-Nahunti II who brought the Kassite dynasty of Babylon to an end. He would then have lived about 1250 B.C. and have been a contemporary of Tio'al, King of Nations. According to this construction, all the characters in Genesis, xiv lived about 1250 B.C., and this is a more natural time to look for Abram, the Hebrew, than in the time of Hammurabi, 2100 B.C.

The So-Called Chedorlaomer Texts.—In Orientalistische Studien Fritz Hommel Gewidmet (Mitt. Vorderas. Ges. XXI, 1916, pp. 69–97) A. Jeremias subjects the so-called Chedorlaomer Texts of the British Museum to a fresh examination and publishes the texts in transcription and translation. The tablet dates at the earliest from the twelfth century B.C. on account of its mention of the Umanmanda, or Indo-Europeans, but it describes an ancient invasion of Babylonia by the Elamites. The name Tudhula certainly occurs in the text, and is the equivalent of Tid'al, one of the Eastern kings in Genesis, xiv. If Arad-Eaku can be read Eri-e-a-ku, then this equals Arioch of Genesis, xiv. The name written ideographically KU-KU-KU-KU-MAL-KU cannot be read Kudur-Laghamar, i.e., Kedor-la'omer, but is to be read Kudur-Nahunte. This was the name of a famous Elamite conqueror who ravaged Babylonia 2285 B.C. He would not correspond with the era to which Abram is assigned by Hebrew tradition. It is possible, however, that his name is a mistake for Kudur-Laghamar, which is a perfectly good Elamite name.

A Specimen of Babylonian Wisdom Literature.—Two fragments of a Babylonian philosophical dialogue have been published by Ebeling and by Reisner, and now some new fragments of the text have come to light which have led E. Ebeling to publish a new transcription and translation of the document in Mitt. Vorderas. Ges. XXIII, 1918, pp. 50–70. In its critical and pessimistic outlook on life the Babylonian dialogue offers a parallel to Ecclesiastes. The Babylonian author, like the Hebrew, tries various kinds of activities and finds that none of them brings happiness. Like Ecclesiastes he advises us to be neither righteous nor wicked for there are disadvantages as well as advantages attendant on righteousness and the same is true of wickedness. His final conclusion is the same as that of Ecclesiastes, "Vanity of vanities, all is vanity," and the day of death is better than the day of birth. The text is discussed also by G. B. Gray in Exp. Times, XXXI, 1920, pp. 440–443.

## SYRIA AND PALESTINE

Prehistoric Palestine.—In Mitt. Anth. Ges. XXXIV, 1914, pp. 81–135 (24 figs.) A. Kohn gives a comprehensive résumé of the prehistoric periods of Palestine, from the Eolithic to the Iron Age, including descriptions of characteristic implements, pottery, dwellings, graves, etc.; also a bibliography and charts illustrating the relations of Palestinian civilization in its successive periods to contemporary periods of other Mediterranean civilizations. Palestine has never been the centre of original cultural development, but has been subject to successive waves of foreign influence. The backwardness of Palestine in these early periods is due to its geographical isolation.

Hebrew Uses of Fire.—In Mitt. Anth. Ges. XLIV, 1914, pp. 136-151 (4 figs.) A. Dachler discusses the use of fire among the Hebrews, basing his conclusions for the most part on the Old Testament and the Talmud. Sacred fires, sacrifices, methods of cooking and illumination, furnaces, smithies, and potteries are considered.

A Hittite Settlement in Jerusalem.—Ezek. xvi, 3 says of Jerusalem: "Thy father was an Amorite and thy mother a Hittite." Gen. x, 15–17 makes Jebus (Jerusalem) a "brother" of Heth. Uriah the Hittite who lived at Jerusalem in the time of David (II Sam. xi, 3) has a name ending in ia like Ushpia, Kikia, Gilia, and other Hittite names. In view of these facts A. Jerku, in Z. D. Pal. V. XLIII, 1920, pp. 58–61, subjects the letters from Jerusalem found at Tell el-Amarna to a new examination in order to find traces of Hittite influence. The name of the King of Jerusalem, Abdi-Hiba, is compounded with the name of a Hittite goddess, and in his letters he uses the formula "land of the city of N. N." which does not occur in the other Amarna letters but is the regular usage of the Hittite tablets of Boghazkeui. These facts indicate that Abdi-Hiba himself was a Hittite; and, according to one of his letters, he was born in Jerusalem, so that a Hittite occupation of the city for a considerable period is assured.

Necessity of Excavations at Jerusalem.—In R. Hist. Rel. LXXIX, 1919, pp. 319–326, René Dussaud calls attention to the urgent necessity of excavation on the site of the Temple at Jerusalem. Architectural restorations of the temple have hitherto been based on the dimensions given by the prophet Ezekiel, which are of less value than those recorded in I Kings. The literary data should be tested by examination of the actual site, and some architectural details of great interest might be recovered. The excavation could be carried on without disturbing the Mohammedan cult.

A Synagogue of the Period of Herod.—A Greek inscription discovered on the Hill of Ophel in Jerusalem in 1914 is published with full commentary by C. CLERMONT-GANNEAU in Syria, I, 1920, pp. 190–197 (pl.) It records the erection of a synagogue together with a hostelry for the entertainment of strangers by Theodotus, son of Vettienus, priest and archisynagogus. The inscription must be dated before the destruction of the city by Titus, and the synagogue was possibly the synagogue of the Libertini, mentioned in the Acts of the Apostles, vi, 9. The dedicator may have been a son or grandson of one of the Jews who were taken to Rome as captives by Pompey. The name Vettienus suggests that Theodotus' father, probably a freedman, had taken a Roman name derived from that of his former proprietor, Vettius. It is interesting to recall that a certain Vettienus is mentioned in Cicero's Letters as a

successful and intelligent *argentarius*. It may have been his son who used a part of his inherited wealth to provide for the comfort of other expatriated Jews who visited Jerusalem at the time of the Passover.

The "Holy Place" of 'Ain Dûk.—Towards the middle of September, 1918. a Turkish shell fired from a battery at El-Ghôranyeh against the British trenches at 'Ain Dûk, northwest of Jericho, laid bare part of an inscribed mosaic (see A.J.A. XXIV, 1920, p. 175) which, as the inscription itself testified, was part of an old Jewish "holy place." The inscription reads: "Honored be the memory of Benjamin the Manager, son of Josah. Honored be the memory of everyone who exerts himself and gave or shall give (?) in this holy place, gold or silver, or any valuable. . . . In this holy place. Amen." "Holy place" was a term used by the Essenes, and it is known that the Essenes lived in precisely these parts around the mouth of the Jordan and the Dead Sea. Further there are indications of animal and human representations, and the motifs recall Galilean rather than Jewish usage. It is possible, therefore, that Dûk lav outside the border of orthodox Jewish usage. The ancient name of the place was Dagon. The discovery is discussed by H. Vincent, B. Bibl. XVI, 1919, pp. 532-563; S. A. Cook, Pal. Ex. Fund, LII, 1920, pp. 82-87; A. Marmorstein, ibid. pp. 139-141; C. C. Torrey, J.A.O.S. XL, 1920, pp. 141-142.

The Ḥabiru and the Hebrews.—In Exp. Times, XXXI, 1920, pp. 324–329, S. Langdon summarizes all the evidence at present available as to the identity of the Ḥabiru who are described in the Amarna letters as invading Palestine about 1400 B.C. He shows that the identity of the Ḥabiru with the people written ideographically SA-GAZ is certain from the identification of gods of the Ḥabiru and gods of the SA-GAZ in the tablets discovered by Winckler at Boghazkeui. This shows that the Ḥabiru were a race, and the name itself is properly a gentilic form. All the latest evidence goes to show that the Ḥabiru are to be identified with the Hebrews in the wider sense, i.e., not merely Israel, but also the kindred peoples whom the Old Testament classifies as children of Eber.

Yahweh in the Mesha Inscription.—In line 18 of the so-called Moabite Stone, or Inscription of Mesha, King of Moab, the following consonants occur: W'QH MShM'·LY YHWH. The lacuna is usually supplied from line 12 so as to read 'R'L, and the line is translated, "I took from thence the altar-hearths of Yahweh." In J.R.A.S. 1920, pp. 175–184 A. Cowley suggests instead the restoration 'ShR LY, and translates, "I took from thence that which should be for me." He shows that it is probable that 'R'L means only "mighty man," as in line 12, so that the translation "altarhearth" is inadmissible in line 18. In this case all early epigraphic evidence for the writing of the divine name as YHWH disappears. Everything seems to show that the early, or at least pre-exilic form of the name was Yāw.

A Samaritan Periapt.—In J.R.A.S. 1920, pp. 343-346 (2 figs.), E. J. Pilcher describes a small amulet which is remarkable as being the first known example of a bilingual in Greek and Samaritan. On the obverse it bears the inscription in Samaritan, "None like the God of Jeshurun"; on the reverse, in Greek, "One God, help thou Marciane."

A Maker of Phoenician Glass.—In Syria, I, 1920, pp. 230-234 (4 figs.), RENE DUSSAUD describes a glass cup found at Sidon, and now in the British

Museum. It is signed by the maker, Jason. The provenance confirms the importance of Sidon as a centre of glass manufacture. M. Dussaud also calls attention to two skilfully modelled glass fish, which were discovered at Tyre and are now in the Louvre. They were intended as ornaments on glass vases, and cups actually ornamented with similar fishes have been found in Rome and at Trier. These were undoubtedly imported from Phoenicia.

Ancient Architecture in Syria.—With the issue of the sixth part of his Ancient Architecture in Syria, Section B, dealing with the ruins of the Djebel Sim'ân Professor Howard Crosby Butler has completed the publication of the discoveries made in Northern Syria by the Princeton Expedition in 1904–1905. As in the earlier volumes numerous photographs and plans of ruined churches and other buildings are reproduced, as well as drawings showing elevations and various architectural details. The sites discussed are Dêr Sim'ân (Telanissus), Kal'at Sim'ân, Takleh, Basufân, Kefr Lâb, Burdj Hêdar, Kafr Nabo, Brâd (Barade), Burdj il-Kâs, Kalôta, Kal'at Kalôta, Kharâb Shems, Zûk il-Kebîr, Banastûr, Bashamra, Surkanya, Fafirtîn, Burdjkeh, Bazîhir, Batûta, Kharab il-Mesh-hed, Kefr Antîn, Simkhâr, Shêkh Slemân and Mshabbak. [Ancient Architecture in Syria, Section B, Northern Syria, Pt. 6 Djebel Sim'an. By Howard Crosby Butler. Pp. 261–359; pls. 23–26; figs. 279–391. Leyden, 1920, Late E. J. Brill. 4to.]

A Statuette of Zeus Dolichenus.—In Syria, I, 1920, pp. 183–189 (pl.; 2 figs.) Franz Cumont discusses a marble statuette of Zeus Dolichenus, said to have been discovered in Syria, not far from the site of Doliche. The provenance is interesting, for few memorials of this Syrian cult, which was widely disseminated in the Roman empire, have been found in the country of its origin. The marble, which is of inferior workmanship, represents the god in a Phrygian cap, but with the cuirass and paludamentum of a Roman soldier. He stands on the back of a bull. An altar behind the bull gives the group mechanical stability. It is inscribed as a dedication of Crispus and Silvanus. Its Syrian provenance proves that the type of Zeus Dolichenus which shows him in the guise of a Roman warrior is not of occidental origin. In an earlier period his dress was in imitation of that of Eastern kings; in the Roman age the costume of the Roman emperor was imitated. Probably the marble group is a copy of one of bronze which stood in the temple at Doliche. Another type of this god. exemplified in a statue found at Carnuntum on the Danube, shows him somewhat less grotesquely, with one foot on the neck of a couchant bull. A goddess whose cult was associated with that of Zeus Dolichenus, known in Latin inscriptions as Juno Regia, is regularly represented as standing on the back of a cow, hind, or lioness. An interesting example of this type was found at the camp of Cilurnum (Chesters) in Northumberland. Zeus Dolichenus has close affinities with the Iranian god Ahoura-Mazda, and his worship was associated with the Mithraic cult. Further light on the relation of Syrian and Iranian cults may be expected from excavations in Syria.

Coins of Mazaeus.—In A. J. Num. LIII, Pt. VI, 1919, pp. 1–42 (2 pls.) E. T. Newell attributes two series of coins of Mazaeus, Satrap of Syria and Cilicia, to a mint at Mydriandrus. They have usually been assigned to that of Tarsus.

Coinage of the Seleucids.—In A. J. Num. LI, 1917, pp. 1-151 (13 pls.) is an elaborate article by E. T. Newell on The Seleucid Mint of Antioch. Al-

though hampered by his inability to secure casts of coins in Europe because of the war Mr. Newell believes that he has been able to give "a more or less clear outline of the issues [of the mint at Antioch] as a whole, to show their real sequence, and to throw in relief the comparative importance of this coinage and the light it sheds on the history of the times." He begins with Seleucus VI, 246–226 B.C. and closes with Antiochus XIII, ca. 65 B.C., dealing fully with gold and silver issues, incidentally with bronze coins.

## ASIA MINOR

The Hittite Language of Boghazkeui.—In J.R.A.S. 1920, pp. 49-83. A. H. SAYCE subjects the recent publications of Professor Hrozný of Vienna to a searching criticism. He holds that Hrozny's assignment of Hittite to the Indo-European group of languages is hasty, and is not warranted by the phenomena of the language so far discovered. The main evidences alleged are wâdar, "water" with its genitive wedenas, participles in -nt, kuis "who" and kuid "what," ug "ego," ammug = ξμοι-γε, zig "thou," iya-mi "I make," iya-si "thou makest," iya-(n)zi "he makes," iya-weni "we make," iya-teni "ve make." iva-(n)zi "they make." Wâdar does mean "water." but it has no connection with the Indo-European root since the syllable dar is used to form abstracts and is not part of the root. The genitive wedenas cannot be connected with υδωρ and the two etymologies are mutually exclusive since υδωρ and watan belong to different families of the Indo-European languages. Kuis "who" and kuid "what" are temptingly like Latin quis and quid, especially when we find kuis-ki and kuid-ki "whoever." "whatever." but these words occur also in Lydian, and they do not conform to Indo-European syntax. They precede the words to which they refer, they head sentences without antecedents, and they are used adverbially. Uq is not eqo because the first vowel is long, and because q is a demonstrative element which we find also in ammug "mine." Ammug is used as a nominative and, therefore, cannot be equated with ξμοι-γε. The verbal forms are like Indo-European, but they are not peculiar to this group of languages; they are found also in Vannic and in Sumerian. The best plan is to keep clear of all philological theories for the present, to translate the Hittite texts on the basis of their Babylonian equivalents, and to leave the problem of the affiliations of the language an open question until its decipherment is more complete. If this is not done there is danger that false etymologies may lead to incorrect translations.

The Scapegoat Among the Hittites.—In Exp. Times, XXXIII, 1920, pp. 283–284, A. H. SAYCE publishes a Hittite text containing a ritual law very similar in contents to the law of the scapegoat in Israel. The text reads as follows: "(The priest) brings a lamb: he strings together a lapis-lazuli stone, a shoham-stone, a green stone, a black stone, and a white stone: he makes these stones like a collar; then he ties (them) round the neck of the lamb; then he drives forth the lamb to a foreign country, and repeats to it the following: "Whatever foreigner thou art who actest according to the will of the god, thus we bring to thee with its neck tied this lamb as a scapegoat for the god and afterwards observe a feast," and with this ritual (?) he fastens the sin upon the lamb, and it is recited for whatever god acts according to (his) will."

An Egypto-Carian Bilingual.—The Nicholson Museum of the University of Sidney, Australia, contains a stele with a funerary relief and an inscription both in Egyptian and in Carian. This is published for the first time in photograph and correct transcription by A. Rowe in J.R.A.S. 1920, pp. 85–95 (plate). The inscription reads as follows: Ä-V-E-TH-O M-A-V-N-A-F-F-KH-E Ō-D O-V-Y-Z-KH-E; that is, "Af-thoth (?), the Memphite and Ephesian (?)

Coins of Characene.—After having for a long time (125 B.C.-113 A.D.) issued coins with Greek inscriptions, the dynasts of Characene followed the example of their Arsacid suzerains and their Elymaic neighbors in introducing the vernacular on their coins. Some of these legends are discussed by J. DE MORGAN in Num. Chron. 1920, pp. 122-140 (4 cuts). G. F. HILL appends a few notes.

Coins of Perinthus.—In R. Belge Num. LXXII, 1920, pp. 105–109, VICTOR TOURNEUR describes (1) two medallions of Perinthus, one of the time of Gordian (now in the Royal Library of Belgium), the other of the time of Alexander Severus (now in the British Museum) which by reason of their full representation of the attributes of Zeus—the twelve signs of the zodiac on the medallion of Gordian, the sun and moon, earth and sea on that of Alexander Severus—permit the inference that it was Zeus, the lord of the world, who was worshipped at Perinthus; (2) various coins of Perinthus which together represent nearly all the labors of Heracles and show how important his cult was, certainly as early as the time of Domitian, so that the passage in Ptolemy (III, 11, 16), which attests the surname "Heraclean" for the city at a period much earlier than the fourth century A.D. should not be suspected of being a late interpolation.

Coins of Sinope.—In A. J. Num. LII, 1918, pp. 117–127 (2 pls.) E. T. Newell discusses the Alexander coinage of Sinope and argues against L. Müller, who assigned the issues in question to Sidon, that they were struck in a mint at Sinope.

Coins of Tarsus.—In A. J. Num. LII, 1918, pp. 69–115 (8 pls.) E. T. NEWELL studies the coinage of Tarsus under Alexander and the satraps who immediately preceded his conquest.

An Inscription at Ereruk.—In C. R. Acad. Insc. 1920, pp. 215-218, C. DIEHL corrects Strzygowski's reading of an inscription from the south side of the basilica at Ereruk, near Ani in Armenia, published in Strzygowski's Die Baukunst der Armenier und Europa, Vol. I, p. 31.

## GREECE

### SCULPTURE

The Ludovisi and Boston Reliefs.—In J.H.S. XL, 1920, pp. 111-123 (pl.) G. M. A. RICHTER gives briefly the present state of the discussion on the subject of the Ludovisi and Boston reliefs, referring chiefly to Studniczka's and Caskey's articles (Jb. Arch. I. 1911, 50 ff.; A.J.A. 1918, 118 ff.) and puts forward a new interpretation: That the two reliefs, belonging to a monument in honor of Aphrodite, represent, like the two pediments of the Parthenon in

honor of Athena, one the birth of the goddess and the other the most significant manifestation of her power; *i.e.* the Boston relief depicts the goddess, through her son and representative Eros, as granting and withholding the blessing of sons, upon which the continued existence of a family depends; hence the contrasted emotions of joy and grief expressed by the two women. The four figures at the corners represent different classes of votaries. Klein's and E. A. Gardner's theory of forgery is dismissed as false on artistic and psychological grounds. The representation of water in the Ludovisi relief and the differences of measurement are also touched upon.

A Bronze of Fifth Century Type.—In Ausonia, IX, 1919, pp. 87–92 (pl.) A. Minto discusses a bronze statuette, discovered at Montegabbiano near

Orvieto, and now in the Archaeological Museum of Florence (Fig. 4). It represents a young woman, wearing a Doric chiton with apoptygma. The head is inclined to the right and the lost right arm probably held a patera. The dress shows a more free and natural treatment of folds than is usual in Doric drapery of the fifth century, and it appears that the prototype of the statuette was a work which, though preserving much of the form of fifth century sculptures, manifested in detail some tendencies to the style of a 'ater period.

Praxias.—In a study published in *Memoirs of the American Academy in Rome*, III, 1919, pp. 91–100 (4 pls.) E. DOUGLAS VAN BUREN adopts Homolle's theory that Callimachus and not Calamis was the master of Praxias.



FIGURE 4.—BRONZE STATUETTE: FLORENCE.

the sculptor of the pediments of the fourth century temple at Delphi (Paus. X, 19, 3). The work of Callimachus and his school was the répertoire from which the sculptors of the neo-Attic school derived their types. The neo-Attic reliefs which represent Apollo, followed by Leto and Artemis, receiving a libation from a winged Nike beside a small altar, are probably imitative of figures in the east pediment of the temple at Delphi. The plane tree and the Corinthian temple in the background of two of these reliefs show that the composition is associated with Delphi. The figures are from one side of the pediment group; the other side of the gable was occupied by the Muses. It is further conjectured that the orgiastic Dionysiae figures found in some neo-Attic reliefs in what seems incongruous juxtaposition with archaistic types, are derived from the west pediment of the Delphi temple. In this were represented Dionysus

and the Thyiads. The composition was completed after the death of Praxias by Androsthenes, a contemporary of Scopas who may have been under his influence. He may, therefore, have introduced among the traditional figures of the school of Callimachus some which showed Scopaic traits.

The Apotheosis of Homer.—In Röm. Mitt. XXXII, 1917, pp. 74–89, J. Sieveking argues that the relief representing the apotheosis of Homer is not based on a similar group of statues in the round, though many of the individual Muses go back to types of statues and Tanagra figurines. The grouping shows

FIGURE 5.—DIONYSUS AND SATYR: VENICE.

the influence of painting. The date of the relief is about 150 B.C.

Groups of Dionysus and a Satvr.—The groups of Graeco-Roman date which represent a more or less intoxicated Dionysus accompanied by a young satvr are the subject of a study by ALDA LEVI in Ausonia, IX, 1919, pp. 53-64 (pl.; 2 figs.). A group of this type in the Museo Archeologico Venice, distinguished by the harmony of its composition, is Praxitelean in its lines, while its expressiveness is suggestive of Scopas (Fig. 5). It is compared with similar groups in the Museo. Chiaromonti and in Alexandria. In a number of other similar groups the figures are modified in the direction of Hellenistic taste, the Dionysus becoming more grossly in-

toxicated, the satyr more animal. The transformation of the satyr type indicates that the original could not have been the famous satyr of the group by Praxite'es described by Pliny (N.H. XXXIV, 69), since later artists would hardly have ventured to take liberties with a type so celebrated.

Iconographic Miscellanies.—In Röm. Mitt. XXXII, 1917, pp. 118–146-(pl.), M. Bieber discusses the busts of Socrates. The pseudo-Seneca, according to her, really represents Aristophanes. The relief found in the olive orchard of the Cephisus plain in 1840 (Conze, Att. Grabrel. IV, pp. 8 ff.) represents an oil merchant and his family and is to be dated in the first century B.C.

#### VASES AND PAINTING

Plastic Vases.—A vase in Munich, a red-figured cup supported by a plastic group representing a negro boy seized by a crocodile, is the occasion of a detailed study of Greek plastic vases by E. Buschor in Mün. Jb. Bild. K. XI. 1919, pp. 1-43 (4 pls.: 60 figs.). The type exemplified by the cup in Munich and by one in Boston is of fifth century origin, the plastic group showing an effective and well unified composition mainly in one plane. A well-defined variant of this type appears in several fourth century vases of Italian origin. in which the group is more complicated but less dramatic than in the earlier type. Hellenistic art develops a radical reconstruction of the motive, with characteristic tridimensional composition; one of the negro's feet is caught in the jaws of the crocodile, and the crocodile's tail encircles the negro's neck. The whole class of plastic vases, seemingly so alien to the spirit of Greek art. has its origin in a group of small plastic legythi of the seventh century, the forms of which were derived from an Egyptian or oriental source. of the small plastic lecythi are of Proto-Corinthian style. Plastic forms make their appearance in Attic pottery after 540 B.C., and are continued in the fifth century in a series of oenochoae in the shape of female heads. In the sixth century cups of plastic form began also to be manufactured; sometimes with one handle, e.g., a fine negro head in Boston, but more often an adaptation of the cantharus shape. Animal as well as human heads early find a place in the répertoire of the plastic artist: the mule's head and ram's head in Boston. shaped as one-handled cups, are examples. Many novel plastic types appear in the fifth century; and the crocodile group of the Munich and Boston vases is to be attributed to the pottery of Sotades, who experimented in plastic forms, The fine Sphinx cup and the astragalus of the British Museum are also works of Sotades. The name rhyton frequently given to these elaborate plastic cups is improperly applied. The rhyton was a cup in the shape of a horn, with an orifice at the lower end. It sometimes had plastic ornament, but is not to be confused with the type to which the crocodile vases belong. A study of the representation of negroes in vase-painting as well as in plastic form shows that the Ionians were the intermediaries in the transference of this type from Egypt to Athenian art.

A Marriage Procession on a Red-figured Crater.—In Ausonia, IX, 1919, pp. 65–75 (pl.; 3 figs.) Antonio Minto discusses a severe red-figured fragment in the Museo Archeologico of Florence, showing a bride conducted by the bridegroom and followed by a young woman carrying a vase and a box; a boy holding a patera; and a woman with two torches. The objects carried by the young women and the boy have reference to ceremonies on the reception of the bride at her husband's house. The vase is attributed to Hieron (Macron) or an imitator.

The Jason Vase from Cerveteri.—In Rend. Acc. Lincei, XXIX, 1920, pp. 52-64 (3 figs.) Pericle Ducati discusses a well-known red-figured vase-painting, in the severe style, depicting an Argonautic scene, unknown to us through literary tradition, where Jason is either being devoured by the monster that guarded the golden fleece or is being vomited forth by it. Athena, standing by, takes the place of Medea in this form of the story. The attitude of Athena as a deeply interested observer and the collation of a Felsinean cyathus

on the handle of which a youthful figure is represented as issuing from a serpent's mouth lead the author to the latter of these two interpretations. C. Robert's theory, based on a fragment of the *Hypsipyle* of Euripides, that the vase represents Jason in the act of being devoured and slain by the dragon is refuted, so Ducati thinks, by the passive attitude of Jason and the seeming indifference of Athena to the hero's fate. The vase is placed by Hoppin in his *Handbook of Attic Red-figured Vases* (I, p. 289 No. 102) among the works of Duris. It was first fully treated by Gerhard and Welcker, and has often been reproduced (Panofka, Baumeister, Roscher, Reinach, etc.)

Theon.—In Röm. Mitt. XXXII, 1917, pp. 173–199 (pl.), J. Six discusses the art of Theon and adds several paintings extant in replicas to his series on the Iliad.

#### INSCRIPTIONS

Metrical Inscriptions from Crete.—In Rend. Acc. Lincei, XXVIII, 1919, pp. 308–317, Doro Levi discusses thirty-seven metrical inscriptions from Crete (chiefly hexameters or pentameters), in connection with Wilhelm Meyer's rules as to the coincidence of the ends of words of particular metrical value with definite places in the line, especially the caesurae in the third and fifth feet (see Sitz. Mün. Akad. 1884, p. 979). In a later article (pp. 343–354) Levi discusses the more general application of these laws to pre-Alexandrine and post-Alexandrine literature, and gives a list of the Cretan inscriptions cited by him in his first article.

#### GENERAL AND MISCELLANEOUS

The Phaestus Disk.—In Transactions and Proceedings of the Royal Society of South Australia, XLIII, 1919, pp. 142–152 (7 pls.) A. Rowe renews the discussion of the Phaestus disk. A comparison of the characters on the disk with the syllabic signs of the Late Cypriote script leads the author to conjecture that the disk is of Cypriote origin and belongs to the period of Assyrian domination (the seventh century B.C.). A combination of characters which he interprets as signifying "chief of the shield" occurs in combination with ten different words on the disk; and it is conjectured that these are the names of ten Cypriote princes, possibly identical with the ten whose homage to Esarhaddon is recorded in an Assyrian inscription. No complete reading of the disk is attempted, but the resemblance of many of its hieroglyphs to Cypriote characters is discussed in detail.

The Identification of Ithaca.—In Harvard Studies in Classical Philology, XXXI, 1920, pp. 125–166 (map) F. Brewster publishes a careful study of the evidence for the location of Ithaca, paying particular attention to the point of view of the seaman and working out his conclusions with the help of charts prepared for mariners. He finds that the traditional identification of Ithaca with Thiaki is correct. Arkudi is the ancient Asteris, and Port Frikes is Reithron. Leucas and Cephalonia are Same and Dulichium respectively. When Telemachus returned from Sparta he followed an old trade route and landed on the southern end of the island. The lines in the Odyssey which refer to Ithaca really fit actual conditions.

The Excavations at Delphi.—Mr. G. C. Richards has published a translation from the Danish of Dr. Frederik Poulsen's work on Delphi. The book

gives a general account of the site, the oracle, the earliest objects found, the Treasury of the Sicyonians, Cleobis and Biton, the Naxian sphinx, the Treasury of the Siphnians, the Temple of Apollo and its pediments, the Treasury of the Athenians, the war monuments of Delphi, the votive offerings of the Sicilian princes, the Lesche of the Cnidians, the column of the dancing women, the monument of the Thessalian princes and the statue of Agias, the Greek portraits found in the excavations; and finally there is a chapter on the spirit of Delphi. The book is fully illustrated. [Delphi. By Frederik Poulsen. Translated by G. C. Richards, with a Preface by Percy Gardner. London, 1920, Gyldendal. 338 pp.; 164 figs. 4 to. 21 sh. net.]

A Bronze Deinos and Stand.—In Dedalo, I, 1921, pp. 153–161 (pl.; 8 figs.) C. Albizzati describes a bronze deinos of about 500 b.c. with its tripod stand, found at Amandola, and now in the Museum at Ancona. The handles have the forms of a lion and a bull. The lion is almost exactly like a bronze lion in Boston, also originally the handle of a vase (B. Mus. F. A. VIII, 1910, pp. 49–50). The feet of the tripod represent dogs' feet. Between the legs are pairs of volutes, terminating in a palmette. The style of this ornament is comparable to bronzes from Olympia and from Locris. The deinos is a fine example of Ionic decorative art. The evidence is not sufficient to justify an attribution to any particular locality.

Dynamic Symmetry.—In J. Brit. Archit. XXVII, 1920, pp. 213–223, JAY HAMBIDGE discusses Greek design, and gives a detailed application of the principles of dynamic symmetry to the design of the Parthenon.

The Temple of Aphrodite Urania.—In Ausonia, IX, 1919, Varietà, cols. 13–16, B. Pace conjectures that the site of the temple of Aphrodite Urania in Athens, described by Pausanias as near the Hephaesteum (I, 14, 7) was on a rock projecting from the Nymphaeum Hill, opposite the Kolonos Agoraios, where the little church of Hagia Marina now stands. Sliding down a smooth surface of this rock is believed by Athenian women to be a remedy for sterility. This superstition seems a survival of the ancient cult.

The So-Called Phidias Papyrus.—In Sitz. Berl. Akad. 1914, pp. 806–811, Carl Robert subjects the so-called "Phidias papyrus" of Geneva (see A.J.A. XIV, 1910, p. 515) to renewed criticism. He is confirmed in the view that the fragments in question are not from an account of the traditional trial of Phidias. They are from a commentary on or epitome of an oration. The occurrence of the form  $N\iota\kappa \sigma \pi o \lambda e l \tau \eta s$  shows that the date of the oration was later than the time of Alexander, who first gave the name Nicopolis to a city. While it is not absolutely impossible that the Phidias mentioned in the papyrus is the sculptor, it is more probable that it is neither the sculptor nor the diaetetes of 325 B.C., but a citizen of Nicopolis. The certain identification of the oration which is the subject of the papyrus is impossible; but the occurrence of the name Euthygenes recalls the fact that one of Deinarchus' works was an oration for Euthygenes.

The Origin of the Greek Minuscule Hand.—The earliest known example of Greek minuscule writing, which is the basis of present-day printed and written Greek letters, is the Uspensky Gospels, a vellum manuscript dated A.D. 835 and written by one Nicolaus. Although this book, known by the name of its discoverer, was found in Jerusalem, internal evidence shows that it was written at Constantinople, by Nicolaus, the second of the name who became abbot of

the famous Studium monastery there. In this house, which was founded in 462-3 by a Roman consular named Studius, the copying of manuscripts was an important industry from the first, and in particular two of the abbots who directly preceded Nicolaus were noted for their voluminous and rapid writing. This must mean that they used the ligatured minuscule hand as distinguished from the earlier, more formal and laborious uncial; hence the use of this style of writing, which appears fully developed as from long practice, in 835, may be inferred at least as far back as the first half of the eighth century. It is not, however, derived from the sprawling papyrus cursive of documents of that time: neither is it directly related to the uncial: its origin must rather be conjectured in some earlier form of cursive. The motive for its invention may be found in the cutting off of the supply of cheap papyrus from Egypt by the Arabian conquest in the seventh century, which necessitated the use of the more expensive parchment and vellum, whence the book-form in place of the roll, and the use of both sides of the sheet, as well as the more compact form of writing. (T. W. Allen, J.H.S. XL, 1920, pp. 1-12; 3 pls.)

Greek Archaeology, 1869–1919.—A summary of the results of fifty years of archaeological research in Greece in their relations to philological studies, which was read by H. N. FOWLER at the joint meeting of the Archaeological Institute of America and the American Philological Association at Pittsburgh in 1919; is published in Cl. Journ. XVI, 1920, pp. 93–102.

## **ITALY**

#### ARCHITECTURE

Domitian's Villa in the Alban Hills.—In B. Com. Rom. XLVI, 1918, pp. 1-68 (3 pls.), G. Lugli continues his description of the villa of Domitian. He discusses the very unsatisfactory remains of the central structure, the palace proper. Among the better preserved are several piscinae, thermae, nymphaea, a quadriporticus, a theatre with fragments of a fine stucco frieze, a wonderful cryptoporticus, a hippodrome, etc.

The Sanctuary Ad Spem Veterem.—In B. Com. Rom. XLVI, 1918, pp. 69-84, R. Lanciani takes up again the question of the subterranean sanctuary Ad Spem Veterem and comes to the following conclusions: (1) It has nothing to do with the columbarium of the Statilii Touri; (2) It belongs to Hadrian's time; (3) It is to be grouped with the subterranean and semi-subterranean chambers devoted to foreign rites common in imperial times, such as the basilica Crepereia, the basilica Hilariana, the basilica of Junius Bassus, etc.; (4) the divinity to whom it was dedicated can not be identified.

The Temples Near S. Nicolo a Cesarini.—In B. Com. Rom. XLVI, 1918, pp. 115–160 (pl.), G. Marchetti-Longhi discusses a group of temples in the campus Martius. The templum Bellonae is located by him opposite the west end of the Circus Flaminius, in the Piazza Paganica. The remains of the round temple known as that of Hercules Invictus are identical in construction and contemporaneous with the remains of the rectangular structure under the church. They are to be identified as the temples of Juno Regina and of Diana, erected by Aemilius Lepidus, 179 B.C. Directly south of these sanctuaries

was that of Fortuna Equestris. The three buildings were bound into a group by a porticus, probably the Corinthia or Octavia. The whole complex is shown on fragments 140 and 110 of the *Forma Urbis*, the reconstruction of which Marchetti-Longhi alters somewhat, basing his changes on some recently discovered foundations in the Via S. Nicolo a Cesarini.

#### SCULPTURE

Etruscan Sculpture.—In Dedalo, I, 1921, pp. 559–574 (pl.; 11 figs.) Alessandro della Seta discusses the qualities of ancient Etruscan art, as exemplified in two terra-cotta Gorgoneia, the terra-cotta sculptures of Veii, the bronze Chimera of Florence, the Wolf of the Capitoline and a few other works of sculpture. He finds a tendency to exaggeration of expression and an emphasis on corporeità characteristic of Etruscan style.

A Great Etruscan Sculptor.—It has been conjectured by some critics that Pliny's statement concerning the calling of Vulca, a sculptor of Veii, to Rome to make for the temple of Jupiter a polychrome terra-cotta statue of the god is based only on legend, that large Etruscan terra-cotta sculptures in the round so early as this did not exist, and that the Capitoline temple is really two centuries later. But now the excavation (in 1916) of pieces of life-size sculptures in Vulca's native city confirms the early date of the Etruscan development of this art and even points strongly to that famous sculptor as the author of the finds. The fragments belong to a free standing group representing the contest of Apollo and Hercules over a hind in the presence of two divinities. one of whom is Mercury (cf. A.J.A. XXIII, 1919, pp. 300 ff.). The figure of Apollo is very largely preserved. The style of the work places it clearly in the series of Etrusco-Italian works of the end of the sixth century, with the nearest parallels, outside of Italy, in Ionic work, such as the sculptures of the treasury of the Siphnians at Delphi. (G. O. GIGLIOLI, Rass. d'Arte, VII. 1920, pp. 33-42; pl.; 10 figs.; and Emporium, LI, 1920, pp. 59-69; 24 figs.)

The Walking Apollo.—In Boll. Arte, XIV, 1920, pp. 73–83 (12 figs.) C. Anti compares the Apollo of Veii with other ancient sculptures exhibiting similar motives of movement. It is shown that the Apollo, while pleasing from all sides, was made with the frontal view as the principal one, while the Hermes of the same group was to be seen from the side. The two were apparently made by different artists. Closest relationships to the Apollo are exhibited by the Naples Artemis from Pompeii and the statue of a woman in the Syracuse museum. Both of the latter are Sicilian work, and their similarity to the Veii sculpture helps to prove a radiation of Sicilian influence upon Etruscan work. The point of contact was, of course, Rome, where both Etruscan and Sicilian artists worked in the early fifth century B.C.; political reasons prohibited the access of Etruscans to Sicily itself.

The "Vertumnus" of Florence.—In Rend. Acc. Lincei, XXIX, 1920, pp. 65–75 (3 figs.) G. Bendinelli undertakes to prove that the so-called Vertumnus of the Archaeological Museum of Florence, found in Isola di Fano in 1884 (Not. Scav. 1884, pp. 270–274) is a Hermes. Milani, who is responsible for the common interpretation, admits that Vertumnus was a sort of Etruscan Apollo and that the type is midway between the Apollos of Tenea and Piombino, dating back, therefore, to the sixth century B.C. This would presuppose a school of

sculpture in Central Italy capable not only of imitating Greek works of art but of producing independent and original creations, for Milani argues that this statue shows no traces of Greek influence. There is, however, no basis in fact for any such assumption. Bendinelli, adducing parallels from Greek vase-paintings, finds in the wand, headdress and shoes of the statue convincing proof that, if the statue is a Vertumnus, it is a Vertumnus-Hermes and not a Vertumnus-Apollo. He dates it as far back as the time of Pisistratus, comparing its style with the female statues of the Acropolis and the Moschophoros of the same museum, but regarding its execution as an Etruscan imitation of Peloponnesian art, the Attic school of this early period being unfamiliar with bronze technique.

A Statuette of Vacuna.—In Rend. Acc. Lincei, XXIX, 1920, pp. 76–88 (fig.) GIOVANNI PANSA describes a bronze winged statuette from his own collection and identifies it as Vacuna, the epichoric goddess of the Sabines. The figure measures 14.5 cm. from tip of wing to the feet and holds in the right hand an apple or pomegranate. It was found in Sabine territory, in the Ager Reatinus, according to the statement of the finder. In proving its connection with Vacuna Pansa dwells upon the fact that this Sabine goddess, though sometimes identified by the ancients with Diana, Venus, Minerva, Bellona, Ceres, etc., was originally an agricultural divinity of the Bona Dea or Demeter type, especially identified with the soil and the defense of the soil as a goddess of victory. As to the etymology of the name he disagrees with the scholiasts to Horace, Ep. I, 10, 49 and with Ovid, Fasti, VI, 62, 307 who connect it with vacare and vacuus and, comparing the Latin goddess Vica Pota and the Etruscan divinity Fecu, thinks the root to be vik as in the words pervicus, pervicax, vincere, etc.

Some Roman Portraits.—In Röm. Mitt. XXXIII, 1918, pp. 1–30, Georg Lippold objects to Studniczka's identification of the so-called Pompeius with Menander; he argues that it represents Vergil. The pseudo-Seneca often united with this portrait may be Lucretius. The statuette reproduced in Porträtstatuen, pp. 86 f. represents Zeno of Citium the Stoic. Studniczka's "Sejanus" and "Agrippa Postumus" are identified as Cn. Domitius Ahenobarbus and his son of the same name, grandfather and father of the emperor Nero. The bust in Copenhagen which Studniczka calls Caligula is a Renaissance work. In B. Com. Rom. XLVI, 1918, pp. 169–183, Tina Campanile discusses portrait heads in the Archaeological Museum in Florence, the portrait of an old man (Roman of the end of the Republic), Augustus, Tiberius, Vespasian.

The Julio-Claudian Family on the Ara Pacis.—In Röm. Mitt. XXXII, 1917, pp. 90–93, J. Sieveking makes the following identifications of figures on the Ara Pacis: Agrippa (veiled) leads the procession together with his son L. Caesar; the majestic figure preceding Tiberius is Livia; Julia with Agrippa Postumus goes before Drusus, who is followed by his wife, the younger Antonia, and their children Germanicus and Livilla. L. Domitius Ahenobarbus and the older Antonia follow them.

A Bust of Constantius Chlorus.—In Mün. Jb. Bild. K. XI, 1918, pp. 44–54 (12 figs.) Johannes Sieveking proposes a new identification of a bronze bust in the Munich Antiquarium which Furtwängler published as a portrait of Maximinus Thrax (Ibid. II, 1907, pp. 8 ff.). Four phases may be distinguished in the portraiture of the Imperial period: (1) from Augustus to Hadrian a style

which is under a predominant Greek influence; (2) from Antoninus Pius to Elagabalus, effort after totality of visual impression rather than plastic effect, with marked use of light and shade; (3) from Alexander Severus to Diocletian. continuation of the picturesque style, but simpler, and with deeper expressiveness, "the last real, and perhaps the most characteristic flowering of Roman portraiture": (4) from Diocletian to and including the Byzantine period, masklike rigidity and abstract expression, denoting the exaltation and remoteness of the Emperor. The portraits of Maximinus Thrax, in sculpture and on coins. are striking examples of the third phase. The portrait bust in Munich, on the other hand, is distinctly a product of the fourth phase. The head is as much an incarnation of the idea of Imperial exaltation as a representation of an individual. The peculiar rendering of the eyes is also a ground for assigning the work to this period; and on the same ground two bronze oenochoae in the form of a male head, one in Paris and one in Munich, are to be attributed to the same period. The band and the wreath on the Munich bust suggest that the subject is earlier than Constantine; and its resemblance to coin portraits of Constantius Chlorus, the father of Constantine, is sufficient to justify its identification as a portrait of this emperor.

Methods of the Roman Copyists.—In Röm. Mitt. XXXII, 1917, pp. 95–117, Georg Lippold calls attention to the freedom with which the hair, attributes, caps, bands, etc., of the original statues were reproduced by the copyists. Replicas of the same statue, therefore, often produce entirely different impressions.

Statues of the Muses.—In Röm. Mitt. XXXIII, 1918, pp. 64-102, Georg Lippold distinguishes five groups of statues of the Muses: the Vatican group of the end of the fourth century B.C.; the "Philiskos" group fifty years later; the Ambracian, contemporary with the latter; the prototype of part of the Halicarnassus base, dating from the end of the third century; and the Frankfurt group of the second century.

The Sarcophagus of Torre Nove.—In Röm. Mitt. XXXII, 1917, pp. 168–171, J. Sieveking argues that the relief in Florence which is so similar to the sculpture on the sarcophagus of Torre Nove is a Renaissance copy of an antique historical relief the original of which was also used as model for the sarcophagus. The marriage scene has nothing to do with Aeneas.

#### VASES AND PAINTING

The Tyro of Sophocles.—To the monuments (a Greek terra-cotta relief and some Etruscan mirrors) to which G. E. Rizzo has already called attention as illustrating the myth of Tyro, which formed the basis of Sophocles' lost tragedy, E. Galli (Boll. Arte, XIV, 1920, pp. 17–35; 4 figs.) adds an Italian painted vase, evidently a mediocre copy of a Greek original of the end of the fifth century, B.C. It is an Apulian amphora and is now in the Museo Nazionale at Naples. The scene here depicted has always been interpreted as the meeting between Electra and Orestes, with Pylades, at the tomb of Agamemnon; but a careful study proves that it is an important passage from the story of Tyro; the moment represented is that in which the twins, Neleus and Pelias, appear before their mother at the well before the temple where she serves.

Ajax and Cassandra on a Tarentine Vase.—In Röm. Mitt. XXXIII, 1918, pp. 31-44 (pl.) Carl Robert publishes fragments of a Tarentine vase, giving what he considers the most beautiful of the later representations of the famous scene of Ajax and Cassandra. The fragments were found in Ruyo in 1875.

The Tomb of the Nasones.—In Röm. Mitt. XXXII, 1917, pp. 1–20, G. Rodenwaldt reproduces and discusses six paintings now in the British Museum from the tomb of the Nasones and some old copies. On the evidence of these he posits a classicistic trend in the painting of the second century A.D. following the illusionistic fourth style.

#### INSCRIPTIONS

Electioneering Inscriptions.—In Rend. Acc. Lincei, XXVIII, 1919, pp. 387–405 Anna Scalera transcribes a large number of the electioneering inscriptions on the walls of houses and shops in Pompeii signed by women (or by a husband including his wife in the words "cum suis"), and advocating the election of such and such a candidate. Many of these names are obviously those of slaves, of women engaged in business, or of women of the town. The last mentioned were sometimes erased or smeared over as bringing no credit to the candidate. The author draws certain interesting conclusions as to the unity of family life among the Romans, and women's interest in matters of public import from which their quiet home life cut them off.

An Altered Inscription.—In  $C.\ R.\ Acad.\ Insc.\ 1919$ , pp. 313–328 F. Cumont and L. Canet call attention to the fact that in an inscription found in the Mithraeum of the Baths of Caracalla the name of Mithra has been substituted for the half obliterated name of Serapis. The title  $\kappa o \sigma \mu o \kappa \rho d \tau \omega \rho$  which is given to the god in this inscription was an astrological epithet attached originally to the planets, then to the sun, and to the Emperor as representative of the sun. Its appearance in the Episile to the Ephesians ("rulers of the darkness of this world") marks the hostility of Christianity to astrological cults. In later Christian literature the word becomes a designation of Satan and his demons.

#### COINS

Roman Aes Signatum.—In A. J. Num. LII, 1918, pp. 1-61 (8 pls.) T. L. Comparette favors the view that the examples of aes signatum known to us are commercial ingots, not money, and that the stamps are trade-marks.

Counterfeiting in the Roman Empire.—In R. Belge Num. LXXII, 1920, pp. 5–9, (pl.) J. L. HOLLENFELTZ discusses counterfeiting under Trajan, Gordian III, etc., by means of moulds, several examples of which are now in the Musée d'Arlon. He thinks that the metal used in these moulds, one of which was introduced to cast forty-four counterfeit silver pieces at once, was an alloy of tin (at least 30 per cent.) and lead.

Coinages of Augustus.—The history of the tentative coinages of Augustus up to the definitive establishment of the imperial mint in 14 B.C. is set forth in detail by E. A. Sydenham in *Num. Chron.* 1920, pp. 17–56 (2 pls.), with especial attention to points of disagreement with Grueber (*Coins of the Roman Republic*, II) and Laffranchi ('La monetazione di Augusto,' in *R. Ital. Num.* 1916).

Falsifications of Roman Consular Denarii.—Pompeo Bonazzi warns numismatists of the prevalence in the coin-market of genuine Roman denarii of the Republic transformed by skilful use of the burin on inscriptions into the semblance of rare or previously unknown coins. The method of falsification is exposed, the means of detection indicated, and fifteen sample specimens described and illustrated. (R. Ital. Num. XXXIII, 1920, pp. 71–80; 19 cuts.)

Coin of Antiochus, King of the Slaves?—A small copper coin acquired by the British Museum in 1868 with more than 180 others from Sig. Salinas, of the Palermo Museum, was ascribed by Mr. Head to Morgantina, and by Professor Percy Gardner to one of the Seleucid kings of Syria. E. S. G. R. thinks it is probably a coin issued by Eunus, self-styled "Antiochus, King of the Syrians," who headed the slave-insurrection in Sicily that was finally crushed by Rome in 132 B.C. The description is: obv., veiled head of Demeter r. wearing cornwreath, rev., ear of corn, with inscription in two lines downward BACI ANTIO (last letter doubtful). (Num. Chron. 1920, pp. 175–176; cut.)

#### GENERAL AND MISCELLANEOUS

A Manual of Roman Archaeology.—With the publication of the second volume of their Manuel d'archéologie romaine (see A.J.A. XXI, 1917, p. 218) Professor Cagnat and Dr. Chapot have brought the work to a conclusion. They discuss in turn painting, mosaics, and the subjects depicted in them, cults, public spectacles in the theatre, amphitheatre and circus, agriculture, manufacture and commerce, tools, weights and measures, vehicles, boats, military equipment and decorations, garments, shoes, methods of dressing the hair, toilet articles, jewelry, furniture, cooking utensils, vases, methods of lighting, games and playthings, musical instruments, writing materials, and surgical instruments. The book is fully illustrated. [Manuel d'archéologie romaine. Par R. Cagnat et V. Chapot. II: Décoration des monuments; Peinture et mosaique; Instruments de la vie publique et privée. Paris, 1920, Picard. 574 pp.; 333 figs. 8 vo. 30 fr.]

Prehistoric Antiquities in Palermo.—In Ausonia, IX, 1919, Varietà, cols. 1–12 (7 figs.) B. Pace describes a collection of prehistoric antiquities in the Geological Museum of Palermo. (1) A series of palaeolithic flints from caves between Palermo and Carini belongs to the Mousterian period. These are the earliest objects of human workmanship in Sicily. (2) The Neolithic objects include an axe of basalt and a hatchet curiously ornamented with incised circles and lines; also pottery, one specimen of which has a rudely incised geometric ornament. (3) To the Bronze Age belong a series of bronze hatchets and a spear-point.

The Bernardini Tomb.—The important collection of objects discovered in a tomb at Palestrina in 1876, in excavations made at the expense of the Bernardini brothers, and later purchased for the Museo Kircheriano (now Museo Preistorico), is catalogued, described, and illustrated in detail by C. Densmore Curtis in Memoirs of the American Academy in Rome, III, 1919, pp. 9–90 (71 pls.). In spite of the fact that the door of the tomb was not found, it probably had a dromos and doorway, and a corbelled vaulting. The series of objects found in it, though so varied in size and material, show unity in technique and motives of ornament. The silver bowls and ivories were imported from

the East. The shields, many of the bowls, and minor objects were of local origin. The date of the burial was probably in the first half of the seventh century B.C. In 1918 an unsuccessful attempt was made to re-discover the tomb. The entire surface of the vineyard in which it was found has been worked over to such a depth that further discoveries of value on this site are improbable.

A Decorative Motive on Etruscan Bronze and Terra-cotta.—One of the surest evidences that Etruscan terra-cotta ceramics had as models works in metal is given by the recurrence on bronze and terra-cotta objects of the third and second century B.C. of a special treatment of the myth of Philocetes in which Diomedes gets the arrows while Ulysses adds caresses to eloquence in the persuasion of Philocetes. The same composition that is found in bronze on a patera in the Museo Archeologico, Florence (the application of the reliefs to the patera is not ancient; they probably belonged originally to bronze vases), and on other bronze pieces is repeated on a terra-cotta vase in the same collection. (T. Campanile, Boll. Arte, XIV, 1920, pp. 37–39; 4 figs.)

An Etruscan Illustration of Homer.—In Rend. Acc. Lincei, XXIX, 1920, pp. 153–160 (2 figs.) G. Bendinelli argues that the mirror found near Corneto Tarquinia and regarded by Gerhard (Etruskische Spiegel, IV, pl. CDXXI), followed by Ducati (Röm. Mitt., XXVII, 1912, p. 265) as picturing a scene from ordinary life, represents the visit of Iris to Helen as described by Homer in the Iliad (III, 120 ff.). He maintains that in a work of such admittedly early date, executed under the influence of Greek models (it resembles the Attic vase-paintings of the first half of the fifth century B.C., transitional from the severe to the fine style), genre scenes without some mythological, religious or allegorical significance are extremely rare.

The Silver Bowl from Tarentum.—In *Röm. Mitt.* XXXIII, 1918, pp. 103–124 (5 pls.) Hans Nachop describes and discusses in detail the fourth century silver bowl from Tarentum already published by Mayer, *La Cappa Tarantina*, etc., Bari, 1910.

Atalanta and Hippomenes.—In Ausonia, IX, 1919, pp. 78–86 (4 figs.) A. Minto describes three hitherto unpublished illustrations of the race of Atalanta and Hippomenes. The first is on a glass vase in the collection of Lord Westbury at Castello di Vincigliata near Florence. Hippomenes, a nude figure, looks back at his competitor; she pursues him with a sword—a reminder of that version of the story according to which the unsuccessful suitors were slain (Apollodorus, III, 9, 2.). The second is on a glass cup at Rheims, from a Roman tomb of the second century A.D. The third is from a terra-cotta medallion in the Morgan collection. Here Atalanta wears the chitoniskos exomis which is the regular costume of Amazons in the fifth century B.C. Hippomenes, who holds a palm of victory, stands in an attitude which is common in statues of athletes.

Terra-cotta Arulae.—The miniature altars of terra-cotta, decorated in relief, which have been found in considerable numbers in Southern Italy and Sicily and in the vicinity of Rome, are discussed, catalogued, and classified by E. Douglas Van Buren in *Memoirs of the American Academy in Rome*, II, 1918, pp. 15–51 (7 pls.). The earliest are simply decorated cubes; but a more architectonic form soon developed; and in Rome the arula assumed a form in which the top is smaller than the bottom surface, and the narrow ends have

a double convex curve, suggesting the term "hourglass shape." The earliest arulae are from Sicily and Southern Italy; from the discoveries it seems that Caulonia was a chief centre of their manufacture. The types of decoration are of Eastern origin, and have apotropaic or funereal significance; most common is the lion rending a bull. Sphinxes and satyrs' heads also occur. A greater range of decorative motives is found on the later arulae, including some original types, such as a winged Europa and a winged Dionysus. These subjects seem to have influenced the choice of subjects on Roman sarcophagi, which show more allegorical and less sombre themes than the Etruscan urns. Arulae are not found on the mainland of Greece; but small sculptured altars were sometimes placed on tombs in Asia Minor; and the Greeks of Italy may have imitated this practice by the dedication of these little terra-cotta altars in tombs. The hourglass shape is not found in Sicily or Southern Italy. It is probably due to Etruscan influence, and may have had its origin in a baetylic cult.

Roman Razors.—In Ausonia, IX, 1919, pp. 139–160 (23 figs.) M. Della Corte discusses the forms of Roman razors. Two shapes from the classical period are known: (1) a blade with a straight edge and a straight back, the end cut so as to make an acute angle with the edge, the blade folding into a handle of bone or ivory, often ornamented, but shaped so that the fingers could grip it firmly and at the same time manipulate the blade; (2) a blade with a curved edge (the curva theca of Martial, IX, 58, 9–10), and with a handle of simple rectangular form. A shape similar to the first, but not identical with it, is shown on Christian monuments of the fourth and fifth centuries, and marks the transition to mediaeval and modern shapes of razors.

Retiarii.—In Röm. Mitt. XXXII, 1917, pp. 147–167 (6 pls.), H. WOOLMANN describes and discusses the equipment of the retiarii and the various episodes of the battle between them and other gladiators as depicted on clay lamps.

Ad Maecium.—In B. Com. Rom. XLVI, 1918, pp. 101–114 Alberto Galietti identifies Ad Maecium, the scene of the battle between Romans and Volscians in 389 B.C. and probable source of the name of the *tribus Maecia*, with Sublanuvio.

The Driving of the Nail.—In B. Soc. Ant. Fr. 1919, pp. 202–206 J. TOUTAIN reports the substance of a correspondence with Sir James Frazer on the Roman rite of the driving of the nail (cf. A. J. A. XXIII, 1919, p. 431). According to Livy (VII, 3) this was an annual practice which later became occasional. Frazer believes that in the earliest period it was also occasional and private; that later it became an official and annual ceremony, and then lapsed into occasional use.

A Bibliography of the Excavations of the Janiculum.—Under the title Les fouilles du Janicule à Rome (Geneva, 1920; 20 pp.) G. Darier has published a chronological bibliography of works on the subject indicated in the title which appeared between 1906 and 1918.

The Forum at Pompeii.—In Memoirs of the American Academy in Rome, II, 1918, pp. 67–76 (3 pls.; fig.) Albert W. Van Buren publishes some notes on monuments of the Forum at Pompeii. (1) The torso of the acrolithic cult statue of Jupiter has a relief on the back. This relief is earlier than the statue, and not later, as has been supposed. A stone with a sculptured relief of presumably Greek origin was reworked for the body of the statue.

(2) In the pavement of the Forum was a great inscription in letters of bronze. The cutting for the letter Q still remains. (3) The arch at the south end of the Forum was the *ianus* of Pompeii. It did not support a colossal statue of Augustus, as Mau conjectured. (4) The identification of the central one of the three halls at the south end of the Forum as the Curia is confirmed by an architectural detail which is in accordance with Vitruvius' precept for the construction of a curia (V, 2). (5) A spacious hall opening from a portico near the north end of the west side of the Forum was probably a school. (6) The changes in the plan and boundaries of the Forum due to the Roman colonization of Pompeii were much less radical than some archaeologists have supposed. The Forum is typical of the Hellenistic East rather than of Rome.

The Gallic Fire and Roman Archives.—In Memoirs of the American Academy in Rome, II, 1918, pp. 55–65, Lucy G. Roberts concludes from an examination of the archaeological and literary evidence that many of the important public buildings of Rome, including the temples of Saturn, Castor, Dius Fidius, Diana, and Ceres, survived the fire of 387 B.C. The Gauls seem to have respected temples: the only one of which the destruction is certain was that of Apollo. It is, therefore, probable that most of the international documents deposited in the temple escaped destruction, as well as the leges in the temple of Saturn, and the senatus consulta in the temple of Ceres.

The Arcadian Element in Roman Legend.—In Mél. Arch. Hist. XXXVIII, 1920, pp. 63–143 Jean Bayer in a comprehensive investigation of the origin and development of the Arcadian element in the legendary history of Rome, reaches certain conclusions which he regards as established. This Arcadian element was introduced into Italy from Magna Graecia, not Sicily, at an early date, and reached Latium and Etruria in the sixth century, but not in such a way as to impose itself at that time upon Rome and to assume a national character. By the end of the fifth century, however, when the Italian Greeks had begun to enter into political relations with the peoples to the north of them, they built up a unified form of the legend which gave to the earlier stories a more national tone, into which were drawn various non-Arcadian elements. The identification of Latins and Oenotrians, due perhaps to Hippys of Rhegium, was realized about the beginning of the third century, and then established itself so firmly at Rome that it could not be entirely displaced by the triumph of the Trojan legend.

Virgil and Ostia.—In Virgile et les origines d'Ostie (Paris, E. De Boccard, 1919, x, 818 pp.) Jerôme Carcopino develops the thesis maintained by him in 1912 (C. R. Acad. Insc. 1912, pp. 104 f.). The main theory of this thesis is that in the Aeneid Lavinium was in no way connected with the history of Aeneas: it was the town of the Laurentes and of Latinus, built on the site of the modern Prattica. The town which Aeneas founded was Troy, at the mouth of the Tiber, where was afterwards the old federal sanctuary of the Arulenses (Arula? etymologically connected with ara: Aen. VIII, 85), the primitive Ostia. The prophecies and miracles in the Aeneid referred by a mistaken tradition to Lavinium in reality centred about this New Troy of Aeneas. Further, the cult around which are gathered these prophecies, miracles, and sacrifices was not, as commonly supposed, that of the Penates, worshipped at Lavinium; but the cult of Vulcan, worshipped in the old federal sanctuary on the site of Ostia, and identical with Thybris, the River-God.

Virgil's reasons for thus describing the New Troy of Aeneas as a shrine in the primitive home of Ostia, sacred to Vulcan, God of the Tiber, were partly political, that he might further the plans of Augustus for the rebuilding of Ostia, and the establishing of the harbour actually built in the time of Claudius and named by Nero the Portus Augusti; partly moral, that he might revivify the ancient religion of Rome, by honor paid to this god who was worshipped before the advent of Jupiter to Rome.

### SPAIN

Implements of the Bronze Age.—In Proc. Soc. Ant. XXXI, 1919, pp. 151–170 (4 figs.) R. A. Smith describes a series of bronze implements found in the southeast of Spain by the brothers Siret, and summarizes the conclusions of L. Siret regarding the chronology of the Bronze Age in Spain, together with the criticism to which these views have been subjected by J. Déchelette.

Spanish Bronze Votive Offerings.—In B. Soc. Esp. XXVIII, 1920, pp. 82–85 (pl.), N. Sentenach writes on antique Spanish bronzes of about the sixth century B.C., which include representations of human figures, animals, fantastic combinations of animal and man, and other objects. They bear resemblance to the art of other Mediterranean countries of this early date.

### FRANCE

A Prehistoric Drawing.—In C. R. Acad. Insc. 1920, pp. 303–310 (2 figs.) Count Begouen describes a remarkable drawing discovered in the cave of the Trois-Frères at Montesquieu-Aventes (Ariège). It represents a man walking to the left, with head turned in front view. The face is covered with an animal mask and long beard and surmounted by long ears and the antlers of a stag. The man wears a horse's tail. The figure is comparable with a drawing on schist from Lourdes, representing a man in somewhat similar animal disguise. As the costume is borrowed from different animals, it does not seem to represent either a hunter's ruse or a ritual dress. More probably the drawing represents a spirit which can assume different forms; or a magician who has the same power. Count Begouen inclines to the latter view. The cave contains numerous drawings of animals, on which a probably magic sign in the shape of a P often occurs.

The Arena of Paris.—The work of J. C. and Jules Formigé, entitled Les Arènes de Paris, is the subject of criticism by C. Jullian in R. Ét. Anc. XXII, 1920, pp. 187–201. The existing ruins of the Arena are to be attributed to the period of Hadrian. The building was probably destroyed in 275–6 a.d. The structure is not a "demi-amphitheatre"; it is a theatre with a circular arena, analogous to the orchestra of the Greek theatre, and adapted to gladiatorial and other arenic exhibitions as well as to theatrical performances. This type of theatre is common in Northern France. The pure form of Roman theatre is found in the South. There are no substructures under the arena of Paris because no elaborate machinery was needed for the comparatively simple spec-

tacles presented here. M. Jullian doubts whether the remains identified as carceres by MM. Formigé are properly so-called. He also doubts whether the evidence justifies the elaborate reconstruction of the scaena which these authors give. The size of the theatre was about the same as that of the Arena of Nîmes, and it could accommodate about sixteen thousand spectators. The names inscribed on the seats perhaps indicate proprietorship of certain places in the theatre. The building was of squared stones about 0.13m, in height. brick was used. The orientation was E. N. E., and the theatre commanded a magnificent view. Its situation was between the road to Sens and a country road leading to villas on the Seine. M. Jullian does not believe that there was a permanent Circus at Paris, but a temporary structure on the site indicated by MM. Formigé, on the bank of the Seine in the Quartier St. Victor. M. Jullian believes that the Gallo-Roman theatres had a special relation to the indigenous civilization, because their sites seem to have been regularly attached to the sites of Gallic cults. No province of the Roman empire has so many theatres as Gaul.

Gallo-Roman Votive Offerings.—In B. Soc. Ant. Fr. 1919, pp. 146–148, J. TOUTAIN maintains that ex-votos from Gallo-Roman sites, representing children in swaddling clothes, parts of human bodies, and animals, mark a ritual substitution for actual human and animal sacrifices practiced in primitive times (see Caesar, B. G. VI, 16).

Fish-ponds in Roman Gaul.—In B. Soc. Ant. Fr. 1919, pp. 183-196 G. LAFAYE communicates the results of studies on methods of trapping and imprisoning fish practiced in ancient times, especially in the salt and fresh waters of ancient Gaul.

A Roman Milestone.—In B. Soc. Ant. Fr. 1919, pp. 118–123, E. CHÉNON comments on the inscription of a Roman milestone found at Trouy in the eighteenth century (C.I.L. XIII, 8940), recording the restoration of the road it marked in the reign of Maximinus and Maximus (237 A.D.). He concludes that the stone originally stood at Saint-Florent, perhaps on the bridge over the Cher.

## **SWITZERLAND**

Cocliensis as an Epithet.—In B. Soc. Ant. Fr. 1919, pp. 257–258 is a note. by J. Hannezo on the epithet Cocliensis given to Liber Pater in an inscription found at Saint-Prex, near Morges, Switzerland. The epithet is not derived from cochlea, as M. Chapot suggested (Ibid. 1917, p. 197), but like other epithets ending in ensis, is from a place-name, possibly from Coclia, which may have been a Celtic name adopted by the Romans.

#### GERMANY

The Discovery of the Rhine.—In Mél. Arch. Hişt. XXXVIII, 1920, pp. 5–28, A. Grenier discusses the discovery of the Rhine. He gives a résumé of the allusions to central Europe in the earliest Greek literature, sees a probable

reference to the Rhine in Apollonius of Rhodes, argues that Polybius knew nothing of that river although he is the first ancient writer known to us who mentions the Alps, and attributes the first reference to the Rhine by name to Posidonius. The extent of the latter's knowledge of the river is very uncertain, and the real discovery of the Rhine is to be assigned to Caesar.

#### GREAT BRITAIN

Flints from Grime's Graves, Norfolk.—In Proc. Soc. Ant. XXXI, 1919, pp. 78–104 (77 figs.), H. G. O. Kendall compares flint implements discovered at Grime's Graves in Norfolk with similar implements from Avebury Down in North Wiltshire, and on the basis of this evidence as well as of botanical and geological data concludes that the tools from Grime's Graves are not earlier than the Neolithic Period.

A Megalithic Monument from Jersey.—In Proc. Soc. Ant. XXXI, 1919, pp. 133–144 (4 figs.) R. A. Smith discusses a megalithic monument which was removed early in the nineteenth century from its original site near St. Helier's, Jersey, to Henley-on-Thames. It was a circle of stones, 21 feet in diameter, approached by a passage walled with similar large stones. Within the circle are several cells formed by pairs of stones projecting from the wall. Each pair was covered with a horizontal slab. The whole monument was covered with a tumulus when it was discovered. The original structure dates from the megalithic period; but the mound was probably constructed by people of the Bronze Age, who may have used the building for interments. The circle has a strong resemblance to a neolithic house at Pléneuf on the French coast. Similar circular dwellings have been found in Cornwall.

Prehistoric Shields.—In *Proc. Soc. Ant.* XXXI, 1919, pp. 145–151 (2 figs.) R. A. SMITH discusses prehistoric bronze shields found in Great Britain and Ireland. Some are ornamented with small bosses; others with concentric circles in relief. Continental evidence alone would indicate that the shields belong to the Hallstatt period; but since the Iron Age in Britain seems to have begun much later than on the Continent, these shields, which are apparently of local manufacture, may be of later date than similar Hallstatt remains. Most of them are too thin to have been of practical use, and may have been made as votive offerings.

The Antiquities in the Brentford Public Library.—In Archaeologia, LXIX, 1920, pp. 1–30 (2 pls.; 30 figs.) R. A. Smith describes the more important objects in the Layton Collection of antiquities in the Public Library at Brentford. Most of them were brought to light during dredging operations in the Thames at Kew many years ago. The Neolithic Period is represented by many specimens including picks, celts, daggers, etc., and the Bronze Age by vessels of pottery, daggers, spearheads and a sickle of bronze, as well as by two bone daggers. There are ancient British coins, including two of gold; a remarkable late Celtic wooden bucket cased with bronze, and a bronze bowl which was, perhaps, a water-clock; a Roman iron sword with bronze scabbard, Roman brooches, a few good specimens of Anglo-Saxon antiquities and numerous mediaeval objects.

Roman Cirencester.—In Archaeologia, LXIX, 1920, pp. 161–209 (4 pls.; 21 figs.) F. Haverfield discusses Roman Cirencester—its name and location, its walls, gates and buildings, the town plan and various detailed finds such as mosaics, worked stones, sepulchral monuments and inscriptions. The history of the place is worked out upon the evidence of the pottery and coins. There are appendices: on the name, which is derived from the Latin Corinium, by W. H. Stevenson; on a figure of Eros, by H. Stuart Jones; and on the so-called Matres, by M. Rostovtzeff.

# EARLY CHRISTIAN, BYZANTINE AND MEDIAEVAL ART

### GENERAL AND MISCELLANEOUS

The Two "Sassanian" Dragon Reliefs in the Constantinople Museum.—In Publikationen der Kaiserlich Osmanischen Museen, No. 4 (64 pp.; 5 pls.), H. Glück discusses from every angle the two dragon reliefs purchased by the Constantinople museum in 1916—Nos. 790 (1164) and 791 (1163). Although Strzygowski, who knew the reliefs as early as 1889, regarded them



FIGURE 6.—"SASSANIAN" DRAGON RELIEFS: CONSTANTINOPLE.

as Turkish, Sarre, and later Mendel, the cataloguer of the museum, called them Sassanian. Glück shows them to be Turkish and probably to have come from the decoration of Alaeddin's thirteenth century wall at Konia. The two dragons appear to be of opposite sex, reminiscent of good and evil spirits confronting one another (Fig. 6). The type is found in numerous monuments, reaching back to Sassanian times. But the different treatment of depth and of mass distinguishes these dragons from related Sassanian examples. In fact it appears, since most of the parallels are with works referable to the steppes, that even in Sassanian times the type was derived from northern sources. The Turks brought it southward when they migrated. Along with the material collected by Strzygowski this helps to build up our

knowledge of the northern peoples of the Near East and to throw new light on obscure phases of mediaeval art.

Mediaeval Monuments in Asia Minor.—In Rass. d'Arte, VII, 1920, pp. 102-108 (6 figs.), B. Pace tells something of the work of the Missione Archeologica in Asia Minor and describes some important monuments in Adalia and Konia. To the rapidly growing museum collection in Adalia has just been added a beautiful Byzantine plaque, in fragmentary condition, found among the remains of a little Byzantine church in Adalia. The fragment represents the upper part of the angel Gabriel, dressed in Hellenic chlamvs and holding the staff and globe—the latter object has been changed by a Turk into a disc with Arabic inscription of the name of God. There is not vet sufficient information for dating the work. In Konia the most important monuments are the mosque of Sultan Alaeddin-Minbar, the Injeminare Jamissi, and the mosque of Karà Softalar. The second of these is the most exquisite and is a fine example of Seldjouk art. In contrast to the Arabic style, the ornament of which seems only to have the purpose of covering surface, here the ornament carries out and emphasizes the lines and functions of the architecture. The little mosque of Karà Softalar is of central plan and is enriched with plaques of lace-like work.

Armenian Architecture.—In Syria, I, 1920, pp. 253-263 (4 pls.; 3 figs.) FRÉDÉRIC MACLER gives a summary account of the origins and history of Armenian architecture, illustrated by colored plates from water-colors by A. Fetvadijan. The earliest existing churches are of the sixth century and show Syrian influence. To the seventh century belongs the polygonal church of Zwarthnots, the plan and ornamentation of which are largely derived from Greek and Syrian sources. In the era of the Bagratid dynasty at Ani and the Ardzrounis at Van (ca. 900–1050 A.D.) numerous churches and convents were constructed. The eleventh century marks the highest development of Armenian architecture, at Ani, Van, Althamar, and Kars. In the twelfth and thirteenth centuries, under Georgian domination, the Syrian and Byzantine influences apparent in earlier work are supplanted by an oriental element the origin of which is probably to be found in Persian architecture as developed under the Arabs at Bagdad. M. Macler rejects the theory of Strzygowski that Armenian architecture had an initiatory rôle in the development of some features of Byzantine construction, and agrees with Diehl that Armenian architecture was influenced by Byzantium as well as by the Orient. The dome, which was a form known to the Assyrians, may have come to Armenia through Persia. The polygonal plan is apparently Cappadocian in origin. But the Syrian influence is predominant.

Legends of St. Thomas.—In Mél. Arch. Hist. XXXVIII, 1920, pp. 29-62 Giovanni Panza discusses the legends attached to the life of St. Thomas in India and to the transfer of his body to Ortona, the influence of the cult of the Cabiri or Dioscuri upon that of the saint, and the connection of this with that of Theseus.

The Rule of St. Pachomius.—In C. R. Acad. Insc. 1919, pp. 341-348, T. Lefort describes Coptic texts, now in the Bibliothèque Nationale and the British Museum, of the Rule of St. Pachomius, the founder of a celebrated monastic order of the third century. The text confirms the authenticity of St. Jerome's version of the Rule, which has been questioned.

An Invocation to Christus Medicus.—A unique inscription recording an invocation to Christus Medicus is published by Paul Monceaux in C. R. Acad. Insc. 1920, pp. 75–83 (fig.). It is to be dated in the fourth century or early in the fifth. The phraseology is strikingly parallel to a passage from Commodianus. The inscription is probably of Donatist rather than Catholic origin. It is from Thamugadi, which was an active centre of Donatism.

An Arabian Copper Lantern.—In Syria, I, 1920, pp. 56–57 (pl.) G. Migeon describes a copper lantern which once hung in the Mosque of Omar in Jerusalem, and is now in the Louvre. It is an exquisite example of workmanship in pierced metal, showing four different systems of decoration, as well as a repeated inscription in the same technique: "There is no God but Allah." The Mosque of Omar was built by the eleventh Khalif, Abd el Malek (691–692 A.D.) and was repaired in the ninth century.

Portable Reliquaries.—Portable reliquaries of the early mediaeval period are classified and described by Sir William Martin Conway in *Proc. Soc. Ant.* XXXI, 1919, pp. 218–240 (11 figs.). Early reliquaries seem to have been "precious boxes turned from their original use and casually employed to hold relics." The later types originated in a form imitative of the fifth century sarcophagus. Of these the first had a lid with double slope; later a four-sloped top was developed; and still later a taller and flatter form with concave ends. The Celtic reliquaries took the form of a roofed building. But the reliquary was first conceived not as a house but as a tomb.

The Saw-fish.—In Proc. Soc. Ant. XXXI, 1919, pp. 20–34 (21 figs.) the mediaeval legend of the saw-fish and the fantastic forms which the fish assumed in manuscripts and sculpture are discussed by G. C. Druce. The attempts of the fish to keep up with ships became a frequently repeated allegory, in which "the sea is the world, the ship and its crew godly folk who pass through its storms successfully; while the saw-fish signifies those who make a good beginning in well-doing but . . . fall back into their old bad habits." Mr. Druce thinks that the original form of the saw-fish may have been suggested by the pristis antiquorum, a Mediterranean fish.

Architectural Terms.—In B. Soc. Ant. Fr. 1919, pp. 233–247, L. Demaison discusses the use of certain technical terms in mediaeval references to ecclesiastical architecture: alae, wassives, aisles of a church; coiffe, cucufa, equivalent to the later chevet d'église, the rounded end of the choir; deambulatorium, any passage or corridor, not restricted to the passage round the choir; ouïes, the windows of a bell-tower; vestibulum, porch, aisles.

#### ITALY

The Baptismal Font of Tino di Camaino.—The font which Tino di Camaino finished in 1312 for the cathedral of Pisa has long been considered to have completely perished with the exception of the inscription. Two fragments of sculptured marble found near the cathedral in 1902-are identified by P. Bacci in Rass. d'Arte, VII, 1920, pp. 97–101 (6 figs.), as parts of this monument. One of them, with only parts of trees and a foot and leg is from the scene representing the Baptism of Christ; the other, with three figures, is from the group of the halt and the blind who wait for the angel to trouble the waters. Even in its dilapidated condition this second fragment is a remarkable example of the

strength of Tino's work and marks him as worthy of his great master, Giovanni di Nicola.

The "Cup of Constantine" a Forgery.—In L'Arte, XXIII, 1920, pp. 157–159 (2 figs.), G. Wilder shows that the so-called Cup of Constantine in the British Museum is a forgery of the nineteenth century based on the publication of a South Italian miniature. Since the cup was currently accepted as the earliest approximately dated example of the bearded Christ and of the crossed nimbus, its extraction from the series of representations of Our Lord is anything but painless. For example, the problem of the Sidamara sarcophagi assumes a new aspect because the crossed nimbus on the Berlin fragment must now be accepted as dating the monument in the fifth or sixth century.

Christians and Pagans on the Via Appia.—The interesting monuments that have been discovered under the basilica of S. Sebastiano are described by R. Paribeni in Rass. d'Arte, VII, 1920, pp. 5-8 (5 figs.). Under the apse is a Roman villa with walls ornamented with splendid frescoes that remind one in their rapid, sketchy treatment of such work as Corot's. Under the right wall are five catacombs of good construction and elegant decoration. Under about the middle of the church just below some sarcophagi with inscriptions of the fourth and fifth centuries are rooms with walls decorated with graffiti inscriptions, nearly all invoking Peter and Paul. And near these rooms, at a depth of 14 meters from the payement of the church, are three tombs, apparently of about the second century A.D., one with frescoes, the subjects of which are for the most part birds, fruit, and flowers, the other two with remarkably well preserved stucco decorations. Though there are some features of the decorations of these tombs that suggest Christian symbolism, it seems likely that the tombs were pagan and that into them some Christian motives were introduced by the artists.

Dante Monuments.—In Rass. d'Arte, VII, 1920, pp. 43–49 (11 figs.), A. Muñoz describes the restorations which he has undertaken in Viterbo and Anagni in anticipation of the commemoration in 1921 of the sixth centenary of the death of Dante. The monuments being restored are connected with the writings or life of the poet and include the church of S. Silvester in Viterbo and the palace of Boniface VIII and the Palazzo Comunale in Anagni.

The Relief in the Tomb of Dante.—In Felix Ravenna, Fasc. XXIX, 19, pp. 75–80 (10 pls.), A. Annoni questions whether Pietro Lombardi is the author of the relief which decorates Dante's tomb at Ravenna. The inscription of Lombardi is on the frame rather than on the relief itself, and, in fact, it appears that part of the relief has been hidden by the sarcophagus in order to improve the perspective, which would otherwise be too faulty to impute to Lombardi. The rosettes in the relief compare very unfavorably with those on Lombardi's column bases at Ravenna. The relief may be an earlier one incorporated in the monument of Lombardi.

Works in America Related to Giovanni Pisano.—In Z. Bild. K. XXXI, 1920, pp. 111–114 (6 figs.), W. R. Valentiner writes on sculptures in American collections that show more or less close relationship to Giovanni Pisano. Good authorities have attributed a Madonna in the Blumenthal collection, New York, to that master himself. But the grace and charm of the work, the naive conception of the Child, and the close similarity of the form and technique to the grave monument of Gastone della Torre in S. Croce, Florence,

make the attribution of the Madonna to Tino da Camaino more satisfactory. A fragmentary Madonna in the Boston Museum of Fine Arts and a well preserved one in a New York private collection are very closely related to the Madonna in the Kaiser Friedrich Museum, Berlin, which is ascribed with some doubt to Giovanni Pisano and must have come from the same workshop. A Madonna in the collection of R. Mortimer, Toledo, is more distantly related to Pisano and is probably by a Sienese master. Two pilasters with trumpetblowing angels in the Metropolitan Museum, New York, have the best claim of any works in America to be attributed to the Pisan master. They undoubtedly belonged to the pulpit of the cathedral at Pisa, where they must once have formed part of the scene of the Last Judgment.

Sienese Paintings in America.—A number of important Sienese paintings. particularly by followers of Duccio, are discussed by F. M. Perkins in Art in America, VIII, 1920, pp. 195-210 (10 figs.). A Madonna in the collection of Mr. D. F. Platt is shown to be not by Segna di Buonventura, to whom it has been ascribed, but by a follower of Duccio unknown by any other work. same is true of a painting of the Magdalene in the Boston Museum of Fine Arts, though the Magdalene painting bears very close resemblance to an altarpiece in Mr. Platt's collection, and the two may be by the same follower of A Madonna in the Boston Museum is not by Ugolino, to whom it is assigned, but by a Ugolinesque follower of Duccio. Much more closely related to Ugolino was the author of an Apostle in the Blumental collection. A splendidly preserved Madonna in the collection of Mr. Philip Lehman lacks the spontaneity and vigor necessary to substantiate the ascription to Duccio himself and must be considered a school piece. Finally, Ambrogio Lorenzetti is represented by three works: the Crucifixion in the collection of Mr. Paul J. Sachs, which was formerly ascribed to Pietro, a Madonna in Mr. Lehman's collection, here reproduced for the first time, and an earlier Madonna belonging to Mr. Platt.

New Remains of Romanesque Painting.—In L'Arte, XXIII, 1920, pp. 200–206 (5 figs.), L. Cellucci publishes some fragmentary paintings which supplement the series, already noted, of Romanesque paintings of Terra di Lavoro, belonging to the school of Montecassino or related to it. The most important are remains of frescoes in a grotto behind the apse of the church of San Michele in Arpino. Others are in the chapel of San Nicola in Galluccio, and in two churches of the Annunciation in Minturno and Maranola.

Joan of Arc and Bologna.—In Rass. d'Arte, VII, 1920, pp. 134–141 (6 figs.), C. Ricci examines the documents and legends relating to the Bolognese descent of Joan of Arc, pointing out the weak basis upon which they are founded and offering new explanations of some of the more plausible of them. It is suggested that the fresco of the heroine on the pilaster of St. Petronius at Bologna was executed at the order of Fileno della Tuate, historian, when he returned from France to Bologna full of enthusiasm for the deeds of Joan, which he had heard recounted. A poor painting in the museum of Versailles is noted as of iconographical interest. It is Lombard fifteenth century work done, as is shown by the inscription, during the imprisonment of Joan as an ex-voto offering for her salvation. It represents the Madonna between St. Michael and Joan of Arc. Ibid. p. vii (fig.), the author brings as further evidence for his opinion that the Versailles painting is provincial Lombard work

of the fifteenth century, a painting of the Madonna and Saints in Contrada Poan, near Bassano.

### SPAIN

A Carthusian Monastery.—In B. Soc. Esp. XXVIII, 1920, pp. 86–93 (3 pls.) C. S. Carreres traces the history and describes the present condition of the monastery of Vall de Cristo, founded near the end of the fourteenth century. The various entrance portals of the monastery and church together with the fragments of the Gothic cloister show the most interesting architectural remains. The library of the monastery forms the basis of the present library of the Instituto de Castellón, and the mediaeval paintings and other art objects from the same source make up a large part of the collection of the Museo de Castellón.

#### FRANCE

The Origins of Saint-Maur-des-Fosses.—The site of the monastery of Saint-Maur-des-Fosses founded in 638, is known in mediaeval documents as Castrum Bagaudarum. C. Jullian, who discusses the tradition in R. Ét. Anc. XXII, 1920, pp. 107–117, believes that the massive foundations belong to the period of the Roman empire, when a castellum would not have been constructed so far from the frontier. The site may have been that of a temple or villa. The attribution of the ruins to the Bagaudes is due to a tradition which exalted these outlaws of the third and fourth centuries as defenders of Christianity.

A Merovingian Font.—In B. Soc. Ant. Fr. 1919, pp. 110–114 (fig.) L. COUTIL discusses some neglected sculptured stones which were found long ago in the court of the bishop's house at Évreaux, and are now in the museum of that town. They form the greater part of the frame of a circular cavity, and may have been the top of a font or small altar. They are ornamented with Christian symbols and rudely carved animal and human figures in low relief, and show fragmentary inscriptions. The workmanship is apparently earlier than the eleventh century and, perhaps, belongs to the Merovingian period.

Capsum and Altarium.—In B. Soc. Ant. Fr. 1919, pp. 129-131, the Abbé Plat discusses the meaning of the word capsum, which occurs in the description of the first basilica of St. Martin by Gregory of Tours. Capsum is properly a liturgical rather than an architectural term, and is equivalent to aula. It designates that part of the nave beyond which the choir did not pass. Gregory uses the word altarium in two senses: in one passage it means the whole space between the western entrance of the choir and the end of the building; in another the sanctuary and the choir combined in front of the memoria or tomb of the saint.

#### BELGIUM

The School of Godefroid de Claire.—In Burl. Mag. XXXVII, 1920, pp. 11-18 (2 pls.), H. P. MITCHELL gives the eighth installment of his study of the enamels of the Mosan school, summing up the contents of the previous articles and publishing some new pieces by Godefroid. One of these, a plaque in the British Museum representing Moses and the brazen serpent, shows the

style of the very early work of the master, in about 1140–50; another, a plaque in the Metropolitan Museum, New York, with the Crucifixion as subject, shows the style of the end of his career, in about 1170–75.

The Cathedral in Relation to the Town.—In Mh. f. Kunstw. XIII, 1920, pp. 67–87 (8 figs.), F. Hoeber uses the Romanesque cathedral of Tournai as a characteristic example of the relation of the situation of the cathedral to the plan of the rest of the town in mediaeval times. In contrast to the Greek-Oriental temple, which stood apart from its surroundings, the mediaeval European church, the center of every phase of the life of the people—political, commercial, artistic, and social, as well as religious—had the places for all these activities grouped closely about it. In the open space before the west front of the church many public festivities were held; the dwellings of the clergy and even of laymen surrounded the church, and markets were close by; so that in the silhouette of the town as a whole the church was the dominant note in a compact group. The modern move toward clearing away these surroundings and isolating the church is, therefore, contrary to the mediaeval spirit, just as the modern distinction between secular and religious was unknown in mediaeval times.

An Evangeliarium of the Twelfth Century.—In B. Soc. Ant. Fr. 1919, pp. 214–222 (fig.) A. Boinet describes a fine Latin manuscript of the gospels bequeathed to the Municipal Library of Metz by the late Baron Salis. It is dated 1146, and was made by a monk of the Abbey of Saint Lambert de Liessies, in Hainault. The initials and miniatures are of great beauty, and the manuscript is of value as an example of a too little known group of Northern manuscripts.

#### GERMANY

Mediaeval Hanseatic Art.—In Z. Bild. K. XXI, 1920, pp. 57-71 (31 figs.), G. F. Hartlaub traces in the work of a group of sculptors in Lübeck in the first half of the fifteenth century the characteristics of one predominant man, John the Younger (?), who bids fair to gain, when better known, an equal rank with such masters as Sluter, Quercia, and Ghiberti. What speaks most plainly for the contemporary fame of this sculptor and his school is the fact that the Abbey church of Vadstena took nearly all his work for about ten years. And the sculptures made for Vadstena have a wonderful wealth of motives in the beautifully carved faces and figures.

#### ROUMANIA

Fortified Churches of Transylvania.—In Proc. Soc. Ant. XXXI, 1919, pp. 165–174 (7 figs.) James Berry discusses the fortified churches of Southern Transylvania. Most of these were built by Germans, who first occupied this region in the thirteenth century; the greater number date from the fifteenth and sixteenth centuries. They are interesting chiefly for their encircling walls, entrances, and towers, which form more complicated fortifications than are found in connection with churches of Western Europe. The masonry is rude and there is little ornament. The wooden structures which formed the projecting galleries of the towers are often preserved.

### GREAT BRITAIN

A Holy Water Stock.—In Proc. Soc. Ant. XXXI, 1919, pp. 119–122, D. H. S. Cranage describes a holy water stock recently found at Shawbury Church, Shropshire. It is of sandstone and its date is late Norman. "The capital is cut up with rudimentary foliage, and nail-heads are added."

A Pyx from Godsfield.—In Proc. Soc. Ant. XXXI, 1919, pp. 63-65 (fig.) G. W. W. Minns connects a pyx discovered at Godsfield, Hants, with a Preceptory of the Hospitallers of St. John established on this site in 1138. Sir Hercules Read expressed the opinion that it is of English origin, and to be dated about 1320. It is decorated with a scroll design of leaves.

A Relief from St. Bartholomew's.—In Proc. Soc. Ant. XXXI, 1919, pp. 123–124 (pl.), E. A. Webb discusses a sculptured stone found on the site of the chapter-house of the Augustinian monastery of St. Bartholomew, West Smithfield. It was the arm of the Prior's chair. A kneeling Augustinian canon in the habit of his order is represented upon it in relief.

The Old Lady Chapel of Westminster Abbey.—In Archaeologia, LXIX, 1920, pp. 31–44 (7 figs.) H. F. Westlake discusses the old Lady Chapel of Westminster Abbey in its relation to the Romanesque and Gothic churches. *Ibid.* pp. 45–46, the Archdeacon describes the account-rolls of the Lady Chapel.

## RENAISSANCE ART

#### GENERAL AND MISCELLANEOUS

North and South in Art.—In Z. Bild. K. XXXI, 1920, pp. 98–103, J. Strzygowski writes a short account of the fundamental principles involved in his recent studies. Attention in the past, especially by Wölfflin and Riegl, has been centered upon periods, with too little regard for peoples, whereas race is a more important factor in development than time. The importance of the north as distinct from the south in artistic evolution becomes more and more evident. The emphasis upon the human figure is given by the south; movement and space, particularly as the latter is expressed in landscape, are the true realms of northern art. Even during the Renaissance these were the fields of interest—especially in the crafts, the natural medium of the north—whenever the north expressed itself.

Germany and Holland.—In Z. Bild. K. XXXI, 1919, pp. 3-10 (4 figs.), C. Hofstede de Groot discusses the artistic relationships between Holland and Germany in the seventeenth century. Most of the German artists who went to Holland for training later returned to their own country but did not transplant Dutch characteristics to German soil. Many of the Dutch artists who went to Germany had Italy as their ultimate goal. The one whose journeys we know most about is Lambert Doomer, whose drawings, in which the interest is almost equally divided between landscape and architecture, tell much of the places he visited.

Cryptographic Inscriptions on Primitive Paintings.—In B. Soc. Ant. Fr. 1919, pp. 156-160, F. DE MÉLY presents the results of investigations on disguised inscriptions in primitive paintings. He finds confirmation of his belief

in the use of these inscriptions in a passage of Roger Bacon, suggesting the employment of letters from different alphabets for secret writing; and in a contract made by a painter of Ghent in 1434, arranging for the use of two sorts of letters in "the devices."

#### ITALY

Florentine Painted Glass.—In Boll. Arte, XIV, 1920, pp. 3-6 (3 pls.), P. Toesca discusses the art of window making in the fourteenth and fifteenth centuries in Florence. A round window, occhio, in the façade of Santa Maria Novella shows in the design such close affinity to the frescoes on the walls of the Spanish Chapel that it may be attributed to Andrea di Bonaiuto, who was painting in Santa Maria Novella in 1365-67. A comparison of this work with occhi of Santa Maria del Fiore, shows how much more successful fourteenth century windows were than most of those of the first half of the fifteenth, with designs by such artists as Ghiberti and Donatello. The traditions of the art of glass were abandoned in these years in an effort to produce the effect of other arts. But a window in the façade of S. Croce, which shows the characteristics of Giovanni di Marco, is an exception among windows of the first half of the fifteenth century; for it has more of the decorative character of true glass work.

A Florentine Theatre.—That pictorial art as well as literature preserves a record of the theatrical art of Florence in the time of the Renaissance is shown by O. Fischel in Z. Bild. K. XXXI, 1919, pp. 11–20 (9 figs.). Abraham, the Russian bishop of Ssusdal has left a description of the festival of the Annunciation which he beheld in Florence the 25th of March, 1438; his account is full of wonder at the effect, with little emphasis upon the mechanism. It is the mechanism which interests Vasari in his description of Brunelleschi's staging of the drama. He describes all the mechanical devices by which the children representing angels were held in place about the dome of the church, how the doors of heaven were arranged, etc. The Paradise which Brunelleschi created has been preserved in a painting by his pupil Michelozzo. His decoration of the Portinari Chapel in Milan reproduces much of the scene as enacted according to Brunelleschi's arrangement. And one may well believe that in the case of the angels, e.g., antique victories were not the models, but the Florentine children with their gold sprinkled draperies, gold colored wings, and curling hair.

Pietro Cavallini.—In Memoirs of the American Academy in Rome, II, 1918, pp. 75–98 (35 pls.) Stanley Lothrop presents a richly illustrated study of the work of the Roman painter Pietro Cavallini. Cavallini was the most important figure in that Roman school which, turning to the study of classical sculpture and painting, succeeded in substituting a degree of reality and beauty for the emptiness and ugliness which Roman art had reached at the middle of the thirteenth century. It was to this school that Giotto owed his early inspiration rather than to the teaching of Cimabue. Among the important works included in Mr. Lothrop's study are the mosaics of Santa Maria in Trastevere, the fragmentary frescoes of the Basilica of Santa Cecilia, and frescoes in the church of San Francesco at Assisi, in the Sala dei Notari at Perugia, and in the chapel of the church of Santa Maria Donna Regina in Naples.

Angelo Bronzino and Ancient Art.—In Röm. Mitt. XXXIII, 1918, p. 45-63, (2 pls.) Bernhard Schweizer points out that the head of the Madonna in

Bronzino's Holy Family now in the Pitti Palace is almost an exact copy of the head of the Cnidian Aphrodite. The original sketch shows other antique influences in this painting. Bronzino seems to have been impressed by Lucian's description of perfect beauty.

An Altar-piece by Girolamo dai Libri.—In B. Metr. Mus. XV, 1920, pp. 137–138 (fig.) B. B(URROUGHS) describes the altar-piece by Girolamo dai Libri recently acquired by the Metropolitan Museum, and formerly in the Hamilton Palace collection near Glasgow. It represents the Madonna and Child seated beneath a laurel tree, with St. Leonard, St. Catharine, St. Augustine, and St. Apollonia. The painting has been frequently published, and is described by Vasari (Bohn's ed., Vol. V, 378–379).

Portraits of Raphael.—In Rass. d'Arte, VII, 1920, pp. 89–96 (pl.; 10 figs.) C. Ricci discusses, besides the paintings and engravings that have already been recognized as portraits of Raphael, a figure at the extreme left of the fresco of the Expulsion of Heliodorus. This figure is very similar in its principal characteristics to the undisputed portraits of Raphael, the best of which is the one in the School of Athens. But the most striking parallel is found in the picture of St. Luke painting the Virgin, in the Academy of St. Luke, Rome, which is attributed to Raphael and his pupils. The figure of the young man at the right here has always been looked upon as a portrait of Raphael. Especially when seen mirror-wise this is in feature, pose, and dress remarkably like the one in the Heliodorus composition. To be sure, the latter figure holds a paper on which his name is given as Giovan Pietro de' Foliati. This, however, is painted in oil instead of fresco and the writing is not Raphael's; so that it cannot be considered as furnishing conclusive evidence.

Portraits of Piero della Francesca.—Tradition marks as portraits of Piero della Francesca the figure seen in full front among the kneeling group in the artist's Madonna della Misericordia in the Pinacoteca of Sansepolcro and a sleeping guard in the Resurrection in the same place. The Hercules in Mrs. Gardner's collection, Boston, has also been thought to represent the artist. A. DEL VITA in Rass. d'Arte, VII, 1920, pp. 109–112 (5 figs.), calls attention to another possibility, a figure in the scene of the Visit of the Queen of Sheba to Solomon in San Francesco at Arezzo. The last is most like the figure in the Misericordia composition and seems with it to be more important iconographically than the other two. The seventeenth century portrait of the artist by Santi di Tito (in the Francesco-Marini palace, Sansepolcro) shows features similar to those of the supposed self-portraits, but it is too late to furnish any certain evidence.

Pisanello Drawings.—In the continuation of her catalogue of the drawings by Pisanello in the Codex Vallardi in the Louvre M. Krasceninnikova (L'Arte, XXIII, 1920, pp. 125–133; 4 figs.) shows that in his studies of animals Pisanello is as much interested in the individual characteristics of his subjects as in his studies of men and women. The indication of type or species never satisfies him, and his manner of drawing, the quality of his pencil strokes, changes with the peculiarities of his subject. The catalogue is completed with a brief study of a miscellaneous series (Ibid. pp. 226–229).

Giovanni della Robbia.—The fourth of the series of books which A. Marquand is devoting to the study of the della Robbias is Giovanni della Robbia (xxiv, 233 pp.; 161 figs.). It furnishes a complete list of the works of the sculptor and a presentation of the pertinent documents. In both respects

there are important additions to previous contributions. Giovanni della Robbia is well known in America, for he is represented in many collections. Two of the most important examples in this country are the Resurrection in the Brooklyn museum (Fig. 7) and the Lamentation in Fenway Court, Boston (Fig. 8.).

Paintings by Bernini.—In Rass. d'Arte, VII, 1920, pp. 145–150 (7 figs.) A. Muñoz publishes some paintings that place Bernini in a high rank as a painter. The most important is a self-portrait in the collection of the Marchesa Incisa della Rocchetta, Rome. In the same collection is a painting of David with the head of Goliath, which is certainly by Bernini, and in the Borghese gallery are two others, a portrait of a boy, and a portrait of Bernini; the latter cannot be attributed to Bernini with so much certainty because of the superiority of its technique.

Two Paintings by Tintoretto.—In Z. Bild. K. XXI, 1920, pp. 207-208 (pl.; 2 figs.) A. L. Mayer publishes two hitherto unknown paintings by Tin-



FIGURE 7.—THE RESURRECTION BY GIOVANNI DELLA ROBBIA: BROOKLYN.

toretto. One, a Flagellation of Christ, recently appeared in German art trade and is a splendid example of the work of Tintoretto in about 1540, showing strong influence of Bonifazio and Schiavone. The other is a life-size portrait of a young man in the Gil collection at Barcelona, where it has been attributed to Titian. It could not have been painted before about 1570.

The Lanscape of Tintoretto.—In L'Arte, XXIII, 1920, pp. 163–180 (9 figs.) M. Pittaluga writes on the development of landscape art in the work of Tintoretto, beginning with the paintings in the Venice Academy, where the landscape is made to harmonize with the figures, continuing through the pictures of the upper room of the Scuola di S. Rocco, where the landscape and atmosphere assume more importance, and culminating in the paintings of S. Maria Egiziaca and the Magdalene in the lower room of S. Rocco, in which the figures are only accidental, and light and landscape are everything.

The Portrait of Pace Guarienti.—In L'Arte, XXIII, 1920, pp. 195-199 (2 figs.) E. Tea presents stylistic reasons for doubting the attribution to Paolo Veronese of the portrait of Pace Guarienti in the Museo Civico at Verona. It

seems possible that the key to the true authorship of the work is to be found in a cycle of paintings—among which the pala of S. Caterina at Bari is typical—that show characteristics of the Caroto brothers as well as of Paolo.

Leonardo's Followers in Milan.—Of the three artists, Bramantino, Solario, and Boltraffio, who best characterize the artistic tendencies in Milanese paint-



FIGURE 8.—LAMENTATION BY GIOVANNI DELLA ROBBIA: BOSTON.

ing after 1490, W. Suida discusses the second two in Mh. f. Kunstw. XIII, 1920, pp. 28-51 (14 figs.), tracing the characteristics of their work throughout their careers and giving chronological lists of the paintings that may be assigned to them, among which several previous attributions are changed.

Paintings that have formerly been falsely given to Boltraffio are shown to have been done by three different followers, forming a "pseudo-Boltraffio" group. The characteristics of a "pseudo-Boccaccino" are also studied and a drawing in the Venice Academy, formerly attributed to Leonardo, is given to this artist. Conjectures are made as to some works that may be by Salai, and, finally, a new artist is added to the Leonardo school, A. Pacchieti, whose signature is on a Head of Christ in the Czernin Gallery, Vienna. To him may also be attributed, through comparison with this signed picture, the Ambrosian copy of Leonardo's picture of John in the Louvre, which has been assigned to Salaino.

A Codex of the Acerba.—In L'Arte, XXIII, 1920, pp. 120–121 (6 figs.) P. D'Ancona publishes a little-known codex of the Acerba of Cecco D'Ascoli in the Berlin print cabinet, the illustrations of which do not show the style of a follower of Piero della Francesca, as von Seidlitz has suggested, but are evidently the work of a Lombard artist with a style similar to that of such artists as Giovannino de'Grassi. He is a ritardato, for the date inscribed in the manuscript, 1475, is fifty years later than the style would lead one to suspect. The date and Lombard origin suggest the hypothesis that this is the very example of the Acerba which Leonardo had and which inspired some of his notes.

Michelangelo at Bologna.—In Atti e Memorie, IX, 1919, pp. 247–262 (pl.) I. B. Supino presents both stylistic and documentary evidence to prove that Michelangelo's work at Bologna was more comprehensive than has been admitted by recent critics, that for the Arca of St. Domenico he made not only the kneeling angel on the right and the St. Petronius (only part of the latter can be considered due to Michelangelo), but also the St. Proclus, which presages the famous David made for Florence in 1504.

Caravaggesque Attributions.—Three famous paintings universally attributed to Caravaggio are studied by M. BIANCALE in *Boll. Arte*, XIV, 1920, pp. 7–16 (5 figs.). Peculiarities distinct from those that characterize Caravaggio's work are pointed out and the paintings shown to be the work of Carlo Saraceni, who came under Caravaggio's influence after much vacillation among others. The paintings in question are the Rest in Egypt, in the Doria collection, Rome; the Madonna della Cappella Cavalletti, in S. Agostino, Rome; and the Denial of Peter, in the Certosa of S. Martino, Naples.

Quattrocento Painting in Rome.—The origins of the new movement in painting that appeared in and near Rome with the return of the holy see to the apostolic city at the time of the accession of Pope Martin V are studied by A. B. Calosso in *Boll. Arte*, XIV, 1920, pp. 97–114 (3 figs.). The artistic development of the most important painters working in Rome at this period, of Gentile da Fabriano, Antonio Pisanello, and Masolino has the same basis as the Gothic Renaissance in general, *i.e.*, a free interchange of theories and practices between various states and countries.

The Calumny of Apelles.—In Rass. d'Arte, VII, 1920, pp. 173–182 (pl.; 9 figs.), G. Q. Giglioli discusses the representations of Calumny, inspired by Lucian's description of Apelles' painting, that have not already been noted—particularly by Richard Förster in his important monograph on the subject. The most interesting of the numerous pictorial renditions, aside from such important ones as those by Botticelli, Raphael, and Mantegna, are Federico Zuccari's sketch and painting, which show a greater originality of conception of the subject than any of the others.

Vicentino.—A study of the life and works of Valerio Belli, called Vicentino, is made by G. Zorzi in *L'Arte*, XXIII, 1920 (pp. 181–194; 9 figs.). The fine, accurate carving that characterizes the work of this sixteenth century artist is perfectly represented in the crystal cross of the Vatican Library, a casket in the Uffizi, and a cross in the Victoria and Albert Museum.

Giulio Romano.—Bibliographical material relating to the youth and student period of Giulio Romano is given by J. Vogel in *Mh. f. Kunstw.* XIII, 1920, pp. 52–66.

Andrea Marchesi.—Documents concerning the activity of Andrea Marchesi da Formigine are published by L. Frati in *L'Arte*, XXIII, 1920, pp. 230–240.

Comacina.—In Rass. d'Arte, VII, 1920, pp. iii—iv (2 figs.), G. I. Ferrari gives a short history of the Island of Comacina, lately given by the king of Belgium to the Italian State, and describes the monuments that remain there. The most important of these are the canonica of St. Eufemia, with parts of its basilica remaining, and the church of St. Maddalena di Ospedaletto of the eleventh century.

The Ancona of Tuili.—In L'Arte, XXIII, 1920, pp. 114–119 (2 figs.) E. Brunelli writes on the best of the three paintings that can be assigned to an anonymous Sardinian painter of the beginning of the sixteenth century. The painting in question is an ancona in the parish church of Tuili; the other two, at Birmingham and at Castelsardo, have already been published (Ibid. XXII, pp. 232–242). The three paintings are closely similar, but the greatest care has been lavished upon the central panel of the Tuili ancona, which represents the Madonna enthroned surrounded by angels.

Catalan Painters in Sardinia.—The Sardinian work of two Catalan painters, Raffaele Thomas and Giovanni Figuera is studied by C. Aru in L'Arte, XXIII, 1920, pp. 136–150 (14 figs.). Documents indicate the residence of the two artists at Cagliari through twenty-two months, February, 1455—November, 1456. The ancona of S. Bernardino in the Museo Nazionale of Cagliari is clearly one of those mentioned in documents and in it the work of the two artists is distinct. Both Flemish and Sienese influences are evident in the work. To the better of the two artists can be assigned a predella in the same museum, from the church of S. Lucifero, and to the other a painting formerly in the porta dell'Angelo. A follower of the school is responsible for a predella in Sanluri, Oratorio di S. Pietro.

#### SPAIN

Monuments of the Province of Burgos.—In B. Soc. Esp. XXVIII, 1920, pp. 65–71 (3 pls.; 3 figs.), V. Lampérez y Romea describes several monuments of Burgos, including the church of Sta. María del Campo (fifteenth to sixteenth century); the sixteenth century church of San Juan, with fourteenth century tower; the church of Santiago in a decadent Gothic style; and the thirteenth century church of Villamoron.

Spanish Masters.—In Mh. f. Kunstw. XIII, 1920, pp. 88-90 (7 figs.) A. L. MAYER publishes several important hitherto unknown works by Spanish masters of the seventeenth century. An Adoration of the Kings in the Boross collection, Larchmont, N. Y., shows close resemblances to El Greco, and by

another pupil of that master, Mayno, is a Praying Jerome in the Björk collection. Three signed and dated works by Ribera are of special importance: a bust painting of Cleopatra, 1637, was owned by an English dealer in 1913; the Virgin with the sleeping Christ Child, 1642, in the collection of F. v. Schrenk-Notzing, Munich, is a proof of the fact that not all the artist's work was dark, but that light tones came more and more to predominate; the same is shown by the painting of a dwarf with a dog, 1643, in the Lederer collection, Vienna. A St. Jacob in Battle signed by Juan Carreno, 1660, in the Boross collection shows the strong influence of Van Dyck. Finally, three paintings are added to Zurbaran's account: a Christ at the Martyr's Block, with kneeling donor, 1620, in a Hamburg private collection; a Joseph's Dream, 1642, Madrid private collection, showing that as early as this the artist was already beginning to weaken under the influence of Murillo; and a child's portrait in the Ernst collection, Zürich, painted a few years later, and closely related to this.

#### FRANCE

A Limoges Cup.—In B. Soc. Ant. Fr. 1919, pp. 161–164, V. Chapot describes a Limoges cup, signed by Pierre Reymond (d. 1584). On the cover are represented Absalom and Joab. The scene on the interior of the cup is unusual: the meeting of Moses and Jethro (Exodus, xviii) in the desert.

### BELGIUM AND HOLLAND

Rembrandt and His Circle.—A number of unpublished drawings in the Danzig Museum are described by H. F. Secker in Z. Bild. K. XXXI, 1919, pp. 37–48 (6 figs.). They include one by Rembrandt—a seated old man with hat, similar to one in Vienna—several that are very closely related to Rembrandt, and one each by Pieter Lastman, Gerbrand van den Eeckhout, Samuel van Hoogstraten, and Abraham Furnerius.

Two Miniatures of the Sixteenth Century.—In C. R. Acad. Insc. 1920, pp. 311–315 Count Durrieu discusses two miniatures found in the Book of Hours of the Library of Vienna, which is a fine example of the work of the Ghent-Bruges school of miniaturists. One is a portrait of James IV of Scotland, represented with his patron, St. James; the other of his wife, Queen Margaret, daughter of Henry VII of England. The figure of St. James is closely allied in style to the figures of the apostles on some detached leaves signed with the monogram HB in the Library at Cassel.

An Italian Prince Among Dutch Artists.—In Rass. d'Arte, VII, 1920, pp. 117–125 (7 figs.), G. I. Hoogewerff writes on the sojourns of Cosimo III de'Medici in Holland in the middle of the seventeenth century. In his diary the prince has interesting comments on his visits to the studios of various important artists and there are a number of Dutch paintings now in Italy that were acquired by him.

The So-Called Maître de Flemalle.—In B. Soc. Ant. Fr. 1918, pp. 250–259 F. DE MÉLY publishes some hitherto unrecognized signatures on paintings attributed to the hypothetical Maître de Flemalle. The paintings which have been attributed to him are to be assigned to at least four masters; Roger van der Weyden; two hitherto unknown painters, named Bernhard and Kuhn; and the painter of the unsigned Descent from the Cross in Liverpool.

Rubens' Resurrection Altar.—In Z. Bild. K. XXXI, 1920, pp. 157-162 (4 figs.), H. Kehrer discusses Rubens' altar of the Resurrection in the Antwerp cathedral. Though his other altars there have been so much written about, this one is hardly known, and is not even mentioned in the monograph Klassiker der Kunst. An analysis of the work shows a combination of classical and Italian Renaissance influences in the cold, sculpturesque treatment of the figures. The angels on the outside of the wings betray their models very clearly. The coiffures are copied from the Apollo Belvedere; the angel on the left has taken over quite completely parts of Michelangelo's David, notably the right hand and arm, without any softening of the masculine quality; the one on the right is copied partly from the David and partly from the Lea of the Julius grave.

### AMERICAN ARCHAEOLOGY

#### GENERAL AND MISCELLANEOUS

Alsea Texts and Myths.—Dr. Frachtenberg's personal contribution to the already existing knowledge of this hitherto little known American linguistic stock has been very great. The present volume (Alsea Texts and Myths, by Leo Frachtenberg, Bulletin 67, Bureau of American Ethnology, Washington, 1920, 304 pp. 8 vo.) is a collection of carefully recorded and translated texts made by him on the Siletz Reserve, Oregon. Some material in English obtained by Dr. Livingston Farrand is included. The Alsea form a subdivision of the Yakonan linguistic stock. The growing interest among philologists in American linguistics will find a ready field in the many well-prepared collections of texts like this. Mythologists, too, will find Frachtenberg's discussion of the Culture-Hero, Bear, and the Beaver, and his treatment of the explanatory element in Alsea mythology to be instructive. The tribe is now almost extinct; its language is known only to a few individuals.

Publications of the Museum of the American Indian (Heye Foundation).—The practice of listing publications of the Heve Museum in volumes and numbers has been discontinued with the completion of the last volume. The notes and monographs are to appear in the future as independent titles, each with its own index. The most important among recent publications of this series is Marshall H. Saville's, Goldsmith's Art in Ancient Mexico (1920: 264 pp.: 21 pls.: 10 figs.). Four plates in color greatly enhance the value of the The author has compiled all the available sources on the important subject of the goldsmith's art. He has placed in the hands of the archaeologist a work of reference, treating a metal age in America, which stands historically apart from any antecedent iron or bronze age. The processes of manufacture, of smelting, hollow-casting over a core of wax, gold filigree and mosaics which have caused Mexican goldsmiths' art to stand out as one of the high lights of Central American civilization are treated in the quotations from Cortés, Bernal and Juan Diaz, Martyr, Gomara, Duran and others. The inventories of precious objects of gold sent with consignments of treasures to patrons of the expeditions in Spain read like catalogues of objects which should be in modern museums but of which practically all have been lost or destroyed. The volume

capitalizes the sources of gold, uses of gold. Aztec goldsmiths and their work. gold jewels from Oaxaca, the Nahuan region, the Tarascan region and the Totonacan region. Saville's volume dealing with an art which even the extravagant statements of the early writers did not exaggerate, reveals "the artistic temperament of the native Mexicans." "So far as the few specimens of gold from Mexico justify us in making a comparison with the same class of objects from other parts of ancient America, we are safe in placing these jewels on a higher plane generally than those of the inhabitants of Chiriqui, Colombia. Ecuador and Peru" (p. 187). Two more monographs by the same author deal with the bibliography of Yucatan, Bibliographical Notes on Uxmal (Vol. IX: No. 3, 1921: 106 pp.: 7 pls.), and, Reports on the Maya Indians of Yucatan (Vol. IX; No. 3, 1921; 86 pp.). Transcripts of several little known ethnological accounts of the Mayas by Mendez, Aguilar and Hernandez are edited with notes, Vol. III, No. 3, Hawikuh Bonework, by F. W. Hodge (84 pp.: 46 pls.; 44 figs.) is a study of artifacts found in abundance in the ruins of Hawikuh, New Mexico, a Zuni site and one of the "Seven Cities of Cibola" of ancient Spanish times. The chief conclusion of interest in the bone objects from Hawikuh lies in the disclosed fact that, although exposed to contact with the Spanish for a period of about 130 years, the ancient industry of these Indians was no more modified by the products of civilization than their religion was affected by Christianity (p. 150). Several numbers in the series are devoted to the Indians of Manhattan Island. New York City in Indian Possession, by R. P. Bolton (Vol. XI; No. 7, 1920; 172 pp.; 3 pls.; map) is a historical account, and Archaeological Investigations on Manhattan Island, by A. B. Skinner (Vol. XI; No. 6, 1920; 90 pp.; 26 pls.; 19 figs.; 2 maps) is a discussion of sites, consisting of village sites and shell heaps. Based upon a comparative study of the objects from various parts of the city and adjacent territory, Skinner's conclusion is that the "natives were an offshoot from the typical Unami Delawares and not from the Wappinger group which held the east bank of the lower Hudson and extended eastward into Connecticut." They were under considerable Iroquois influence. He further concludes that the Hudson river was a boundary which divided the natives of Delaware culture from thoseof the New England area; a conclusion coinciding with the demarcations of dialect. Native Copper Objects of the Copper Eskimo, by Donald A. Cadzow (22 pp.; 11 pls.; fig.), is an interesting report on some specimens of native copperwork obtained from a band of the little-known Copper Eskimo temporarily visiting Fort Norman in the MacKenzie district in 1919.

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Archaeological Institute of America

## A GROUP OF SUB-SIDAMARA SARCOPHAGI

In the Morgan wing of the Metropolitan Museum in New York there is a fragment of a sarcophagus which represents an important link between late classic art and the Christian sarcophagi (Fig. 1). This fragment comes from Asia Minor where it was



FIGURE 1.—FRAGMENT OF SARCOPHAGUS RELIEF: NEW YORK.

purchased by an Englishman and carried to England, whence it found its way to this country. It represents the seated figure of a man turned to the right, holding in one hand a *volumen*. He is seated in front of a niche supported on spiral columns and behind his head is a conch shell with the hinge at the base as is customary in Eastern works as distinguished from Western.<sup>2</sup> The capital

<sup>&</sup>lt;sup>1</sup> B. Metr. Mus XIV, p. 17.

<sup>&</sup>lt;sup>2</sup> Weigand, Jb. Arch. I. 1914, pp. 63-67.

is composed of a rich acanthus which swells out beneath the superimposed double volutes. The spandril is filled with a luxuriant foliate design. The relief is flat, much flatter than the photograph shows and is not so much low relief as it is relief in one plane. This lack of plastic feeling is even more apparent in the treatment of the capital and the foliage in the spandril. Here the treatment is coloristic, the shadows are not cast by the leaves, but are produced by the use of the drill which in boring



FIGURE 2.—RELIEF IN BRITISH MUSEUM.

into the flat surface produces a pattern by shadow rather than by relieving the foliage against a plane.

To define the style and school of this relief we may compare a fragment in the British Museum (Fig. 2<sup>1</sup>). The figure is in the same position as on the Metropolitan fragment and I need only point out the way in which he holds the *volumen* to illustrate the similarity that exists between them. Here the background is filled by a gable enclosing a conch carried on bits of architrave broken out over the supports. This architrave is carried on

<sup>&</sup>lt;sup>1</sup> London, British Museum. Strzygowski, Orient oder Rom, p. 51, fig. 19.

behind the female figure to connect with the next niche and is treated in the coloristic manner of the Metropolitan example. The presence of the female figure, identified by the mask as Thalia, makes it possible to recognize the group as a poet and his muse.<sup>1</sup> This figure is also found on other sarcophagi from Asia Minor, namely the one from Selefkieh<sup>2</sup> and the one from Sidamara now in the Museum in Constantinople.<sup>3</sup> The finest of these is the one from Sidamara and it was natural that the monuments found at a later date should be grouped about it and that the group thus formed should take the name of Sidamara sarcophagi.

Since 1901 when Strzygowski dedicated a chapter in his *Orient oder Rom* to this group there has been considerable interest in these late classic monuments. Reinach,<sup>4</sup> Mendel,<sup>5</sup> Muñoz,<sup>6</sup> and Weigand<sup>7</sup> have discussed and enlarged this group until today it stands well defined with between forty and fifty examples scattered throughout the museums of Europe and this country.

The Asiatic sarcophagi are of marble and large in size. Their distant ancestor in the general disposition of the figures was the sarcophagus of the Mourning Women<sup>8</sup> and to this was adapted the architectural wall-decoration of the Empire consisting of a series of aediculae connected by an architrave broken out over the supports. The supports consist of colonnettes with spiral channels and capitals the distinctive feature of which is the double volute. The aediculae are crowned by a gable for the centre and by segmental arches for the sides which enclose beneath them a conch shell. In front of these aediculae and in the spaces between are the figures with the heads relieved against the entablature, a disposition characteristic of the group.

In considering the figures by themselves we find that they are not new to Greek iconography. The seated poet, for instance, recalls the Euripides relief in Constantinople and the Menander of the Lateran, as well as certain grave stelae; the Dioscuri and

<sup>&</sup>lt;sup>1</sup> Reinach, Mon. Piot, IX, 1902, p. 200.

<sup>&</sup>lt;sup>2</sup> Strzygowski, op. cit. p. 47, fig. 14.

<sup>&</sup>lt;sup>3</sup> Reinach, op. cit. pl. XVII.

<sup>&</sup>lt;sup>4</sup> Reinach, op. cit. p. 211.

<sup>&</sup>lt;sup>5</sup> B.C.H. 1902, p. 202; 1909, p. 329; Musées Impériaux Ottomans, Cat. des sculpt. grecques, romaines et byzantines, p. 312.

<sup>&</sup>lt;sup>6</sup> B. Arch. Crist. 1905, p. 79.

<sup>&</sup>lt;sup>7</sup> Jb. Arch. I. 1914, p. 72; also Strzygowski, J.H.S. 1907, p. 99.

<sup>8</sup> Mendel, Musées Impériaux Ottomans, pp. 55, 57, 58, 60.

<sup>9</sup> Cf. von Christ's Gesch. der Griech. Lit. II, 5th ed. Anhang, Nos. 14 and 15.

Artemis occupy a place near the end of a long line of such representations. But they are not copies of any monument that has come down to us; rather they are conceived in the classic spirit without the aid of exact prototypes.

Up to this point we have treated the Asiatic group as a unit; but as we examine the monuments in greater detail we find that the name Sidamara can no longer be applied to the whole group, but that the sarcophagus from Sidamara stands at the head of a division which differs from a group that Weigand localizes in Lydia.<sup>1</sup> This so-called Lydian group is marked by the spiky form of the capital as is seen on the sarcophagus from Sardis, dated about 190 A P.<sup>2</sup>

Weigand using the capital as a criterion has shown that the Lydian group includes not only sarcophagi with gable and arch decoration, but others which have a simple frieze, an arcade, or a series of aediculae crowned with a broken-out horizontal entablature; in all these additional types the alternation of gables and arches, hitherto regarded as a necessary feature of the Asiatic sarcophagi, is replaced by other systems of decoration. So that we have an enlargement of the Lydian group by including sarcophagi which although they deviate from it in general layout, vet because of the peculiar treatment of the capitals must be included within it. Weigand has noted seven examples of this group. They are: the sarcophagus of Torre Nova in Rome (frieze), the Borghese sarcophagus also in Rome (arcade), a third in the Vatican (arcade), a fourth with figures reclining on the cover in the Torlonia collection in Rome (arcade), one in Athens with scenes from the Bellerophon myth (frieze), a sixth in the British Museum in London (horizontal entablature), and possibly a seventh in the Palazzo Mattei in Rome (horizontal entablature)3. What Weigand has done for the Lydian group, it is the purpose of this article to do for the Sidamara group. Just as the criterion of the Lydian group was the spiky form of the acanthus capital, so for the capital of the Sidamara group the most characteristic feature is a luxuriant and very coloristic acanthus pressed down

<sup>&</sup>lt;sup>1</sup> Weigand, op. cit. 1914, p. 72.

<sup>&</sup>lt;sup>2</sup> Sardis, H. C. Butler, A.J.A. 1913, p. 476, fig. 5.

<sup>&</sup>lt;sup>3</sup> Torre Nova, Röm. Mitt. XXV, 1910, p. 97; Borghese, Robert, Sark. Rel. III, taf. 38, No. 127; Vatican, Robert, op. cit. III, taf. 39, No. 130; Torlonia, Robert, op. cit. III, taf. 34–35, No. 126; Athens, Robert, op. cit. II, taf. 50, No. 138; London, Robert, op. cit. III, taf. 39, No. 131; Mattei, Robert, op. cit. taf. 43, No. 141.

and bowed out by the superimposed double volutes which are common to the whole Asiatic group. Now this capital reappears in the fragment in the Metropolitan Museum which has, as far as we can see, the luxuriant acanthus and the double volute of the Sidamara type, and this with its pronounced colorism would lead us to recognize in it another member of the group. But closer inspection shows that we have here an entirely new type, for instead of the customary aediculae we have a continuous arcade, with the archivolts resting directly on the capitals without the interposition of the usual piece of architrave. It is evident, then, that the Sidamara group, like that of Lydia, must be expanded to include examples like this, with characteristic Sidamara



FIGURE 3.—SARCOPHAGUS FROM SIDAMARA: CONSTANTINOPLE.

technique and motifs, but replacing the gable and arch facade with an arcade. The prototype for this arcade is, indeed, already found in the Sidamara sarcophagus itself, the rear face of which displays a pendant arcade of this character, without the colonnettes, but with the spandrils filled with the same luxuriant foliate design (Fig. 3<sup>1</sup>).

But the Metropolitan Museum fragment is only one example of this new type, which we can call sub-Sidamara (because the figure style and capitals are obviously the same as those of the Sidamara group), and though their architectonic disposition is different from that of the Sidamara group as a whole, it is nevertheless already suggested by the pendant arcade on the back of the Sidamara sarcophagus itself.

<sup>&</sup>lt;sup>1</sup> Reinach, op. cit. pl. XVIII.

Another and the most complete of the examples of the new type is in the garden of the Villa Mattei in Rome (Figs. 4, 5 and 6). This sarcophagus shows the closest relationship with the back of the Sidamara example in the capitals and in the general disposition of the background. The third member of the group is a sarcophagus with figures of the Muses in the British Museum (Fig. 7). Here the figures are treated in the same way as on the preceding sarcophagus and the background consists of the same arcade with foliate spandrils that we have found in the other members of



FIGURE 4.—SARCOPHAGUS IN VILLA MATTEI: ROME.

the sub-Sidamara group, but with this exception, that here the terminal supports are pilasters. The fourth example is in the church of S. Nicolo in Bari where, since the twelfth century, it has formed part of the tomb of Archbishop Elia (Fig. 8³). Here the background is treated in a slightly less coloristic manner than in the foregoing example, but the strongest affinity possible is found in the capitals and in the disposition of the arcade with its

<sup>&</sup>lt;sup>1</sup> Rivoira, Architettura Musulmana, p. 138, figs. 115, 116; also Reinach, Repertoire de Rel. grecs et romains, III, p. 301.

<sup>&</sup>lt;sup>2</sup> British Museum Marbles, Vol. X, pl. 44; also Reinach, op. cit. p. 485; also A. H. Smith, Catalogue of Sculpture, British Museum, III, p. 316, No. 2305. <sup>3</sup> Carabellese, Bari, Italia Artistica, Vol. 51, p. 122.

foliate spandrils. The Metropolitan example is in the same line of development but with the tendency to colorism developed. The coloristic tendency which we have found so marked in the architecture does not attack the figures to so great an extent, and in this conservatism as well as in the figures themselves there is the greatest resemblance between the Sidamara and the Sub-Sidamara group. The seated figure of the Poet we



FIGURE 5.—SARCOPHAGUS IN VILLA MATTEI: END.

have seen on the London and Sidamara examples and it exists also on the sarcophagus from Selefkieh.<sup>1</sup> The philosophers of the Bari example, particularly the one to the left with his head turned



FIGURE 6.—SARCOPHAGUS IN VILLA MATTEI: END.

and his right arm thrown across his body, resemble the philosophers on the side of the Selefkieh sarcophagus where these attitudes are found again though the features are changed.2 The Muses as seen on the sarcophagus from the Villa Mattei are found again on a Sidamara example at

<sup>&</sup>lt;sup>1</sup> Strzygowski, op. cit. p. 47, fig. 14.

<sup>&</sup>lt;sup>2</sup> Ibid. p. 57, fig. 21.

Brussa<sup>1</sup> and we have already become acquainted with the Thalia of the London fragment.<sup>2</sup>

The sub-Sidamara group thus formed of four examples has fallen together without much effort, but this is not the only group that is derived from Asiatic sources. My friend Mr. Morey will shortly have something to say about the ramifications of this influence in a monograph he is preparing on the whole Asiatic group so that here we will consider only one of the offshoots. This is represented by two sarcophagi, one found in the eemetery of Concordia,<sup>3</sup> the other preserved in the Villa Ludovisi.<sup>4</sup> These two examples mark the fusion of the types as represented by the front and back of the Sidamara sarcophagus; the gable and arch



FIGURE 7.—SARCOPHAGUS RELIEF: NINE MUSES: BRITISH MUSEUM.

come from the front, while the developed foliate design is seen in full growth only on the back of the Sidamara sarcophagus and on all examples of the sub-Sidamara group.

It has generally been considered that the group of Lydian sar-cophagi was produced earlier than the Sidamara, because, to it belong the only two of the Asiatic sarcophagi, *i.e.* the sarcophagus from Sardis and the one from Melfi, which have hitherto been securely dated in the second century. Whether this relative chronology holds good for their allied groups cannot be stated definitely,

<sup>&</sup>lt;sup>1</sup> Mendel, B.C.H. 1909, p. 330, fig. 41.

<sup>&</sup>lt;sup>2</sup> British Museum, Strzygowski, op. cit. p. 51, fig. 19.

<sup>&</sup>lt;sup>3</sup> Garrucci, Vol. V, pl. 362, 1.

<sup>&</sup>lt;sup>4</sup> Garrucci, Vol. V, pl. 362, 2.

but we have one monument in each group to which we can assign an approximate date. Robert<sup>1</sup> has shown that the heads of the figures which recline on the Torlonia sarcophagus are not the original ones, and that the head of the woman as shown on a drawing before the substitution was made has the characteristic headdress of the first years of the third century. This, although it does not establish a terminus a quo, gives us an indication of the probable period during which the sub-Lydian group was produced, namely the first part of the third century. The second sarcophagus to which we may assign an approximate date belongs to the other group. The Ludovisi sarcophagus represents one



FIGURE 8.—RELIEF FROM TOMB OF ARCHBISHOP ELIA: BARI.

of the phases of the sub-Sidamara group and both because of the extreme colorism of the style, and because of the lack of unity in the architectonic decoration undoubtedly represents a later development. The face of the sarcophagus bears an inscription containing the word DEPOSSIO which De Rossi² has shown was used during the middle of the third century and was displaced, in Rome at least, in the early fourth century by DEPOSITVS. For the four members of the sub-Sidamara group we have no certain date, but included as they are between the Torlonia sarcophagus and the one in the Villa Ludovisi we may assume that they were produced in the second or third quarter of the third century.

<sup>&</sup>lt;sup>1</sup> Robert, op. cit. III, p. 145.

<sup>&</sup>lt;sup>2</sup> De Rossi, Roma Sotterranea, II, p. 308.

These four sarcophagi of the sub-Sidamara group are only an indication of the ramifications of Asia Minor workmanship. Weigand has materially enlarged the "Lydian" group; I hope the present paper will show that the Sidamara group need no longer be confined to the examples displaying the gable and arch facade, and that further inquiry and observation of the essentials of technique and style will enable later students to increase the list of the sub-Sidamara type as well. It is important to note that in tracing the subsequent influence of this Asia Minor sarcophagus style, the gable and arch system is no longer the criterion, since we can see that the Asiatic sarcophagi afforded also a prototype for the arcaded sarcophagi so popular in the fourth century.

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## ATTIC BUILDING ACCOUNTS

## V. SUPPLEMENTARY NOTES

## A. The Parthenon<sup>1</sup>

In some recent discussions of the chronology of the Parthenon, and of the works of Phidias, my arrangement of the building accounts of the Parthenon has been followed;<sup>2</sup> it seems advisable, therefore, to take this opportunity to publish some readjustments which have been necessitated by later discoveries.

Dr. Bannier and Dr. Fimmen, revising the Attic quota lists of the Delian Confederacy. have changed some of the evidence by which I reconstructed the first column of the reverse of the stele. Formerly the only position available for fragment G. on which the demotic of the secretary to the Hellenotan i e is 'Pauνόσιος or Hαγνόσιος, was year IX:4 now, however, years X and XI are also open, the secretaries with the denotics 'Axaprels and Κεραμεύς having been removed to years XIII and XIV. Year XI must still be eliminated, being completed by fragments P+O+C; but year X is preferable to year IX, because the expenses on fragment B, which must be associated with G, are exactly like those of years XI to XIV, dealing only with sculpture; in my former arrangement these accounts for sculpture were interrupted by fragment K. As for fragments K and L, hereby displaced, the former must be assigned to year VIII, while the latter, as formerly, immediately precedes G and, therefore, appears in year IX. Separating G from H, we are now able to read the latter in a more natural manner, with έγρ[αμμάτευε] and

<sup>2</sup> E.g. Frickenhaus, Jb. Arch. I. 1913, pp. 351–352; Collignon, Parthénon,

1914, pp. 48-50; Heberdey, Alt-Attische Porosskulptur, p. 236.

A few additions to the accounts of the Propylaea are reserved for the publication of the monograph dealing with that structure.

<sup>&</sup>lt;sup>3</sup> Ath. Mitt. 1913, pp. 228–238. For a general study of the quota lists taking into account the new discoveries, see Wing, Ann. Report Am. Hist. Assn. 1916, I, pp. 287–297.

<sup>&</sup>lt;sup>4</sup> A.J.A. 1913, pp. 68-69.

 $X\sigma\nu[\pi\epsilon\tau\alpha\hat{o}\nu]$  in lines 40 and 41. The effect of these changes on the chronology will appear in the summary.

Three new fragments have been added to the inscription, one (R) by Professor Groh, and two (S and T) by Dr. Keramopoullos, raising the total number to twenty. All three fragments, as Dr. Keramopoullos has proved, join others which I had previously located in the stele. A careful examination will show that these, too, demand a readjustment of the chronological scheme.

Fragment R was correctly located and dated by Professor Groh. For, on the reverse, R fits against the bottom of C, and O against the bottom of R. confirming the location which I had formerly assigned to O, but raising it by twelve lines (year XII containing only twenty-one lines, being the first of the short accounts like that of year XIV). Then on the obverse the first preserved line of R comes 0.378 m, below the top of the stele. even with line 22 on the obverse of E: therefore the lines on the obverse of R should be numbered 22 to 35; and since line 33 of R is the same as the first line on the obverse of F, the latter must also be numbered 33, as I formerly calculated.<sup>3</sup> In lines 34 and 35, which are continued from F, there were nineteen or twenty letters before  $h\hat{\epsilon}_i$  and  $i\delta o$ ; but the phrase  $E\pi i \tau \hat{\epsilon} s \tau \rho i \tau \epsilon s d\rho \chi \hat{\epsilon} s$ suggested by Keramopoullos would occupy only seventeen spaces, and the restoration of the archon's name only eighteen, besides being contrary to the usage of years II to X (when the archons were not mentioned) and allowing no space for the first secretary of the senate. In line 34, therefore, I retain Groh's reading, Έπι τέ[s δευτέρας άρχες], renouncing my theory of the omission of year II, for reasons given below.4

The surplus of more than 200,000 drachmae in ll. 41-42 Keramopoullos

<sup>&</sup>lt;sup>1</sup> Sborník Prací Filologických, Prague, 1913, pp. 225–227 (the obverse only); this had been published, but not identified, by Philadelpheus, Πρακτικά, 1910, p. 124.

 $<sup>^2</sup>$  'E $\phi$ . 'A $\rho\chi$ . 1914, pp. 197–206, publishing also for the first time the reverse of R.

<sup>&</sup>lt;sup>3</sup> Keramopoullos revises my numbering on the obverse by three lines, making the second prescript begin in line 37 instead of 34 (op. cit. pp. 199–200). But this is purely a question of measurements, and after repeated tests, both independently with F, and with the additional evidence of R, I must continue to uphold my original numbering.

 $<sup>^4</sup>$  I cannot recognize the Euthemon and Stratocles of I.G. I, 296, in our secretary E. . . . . . and epistates  $\Sigma \tau \rho a \tau$ . .; nor does Keramopoullos' suggestion seem probable, that this was a central controlling board which was engaged simultaneously in the erection of other buildings.

Fragment S, of the obverse, which fits against the back of Q,<sup>1</sup> begins with line 42 (as located by F) and ends with 52. Fragment T, also of the obverse, joins I. This renders impossible the association of I with N, which Cavaignac had suggested and Keramopoullos, like myself, accepted; for T shows that at the end of year IV a surplus of more than 13<sup>2</sup>/<sub>3</sub> drachmae was handed over to the succeeding board, while on fragment N there is no surplus at all except the gold staters.

Not only has the obverse of N been displaced, but on account of the raising of O to a higher level the letters O≤, on the reverse of N, cannot be placed as low as line 106; since the payment to sculptors in year XII appears in the seventeenth line of the annual account (line 49), we may suppose that it occupied the seventeenth line of the similarly arranged year XIII (line 71). The bottom of this line 71 would be 1.11 m, below the top of the stele:2 four more lines are sufficient to complete this year's account; it seems, therefore, that the total length of the column was only seventy-five lines, or about 1.17 m. Such a location of N agrees with the evidence from the obverse, where the top is 0.13 m. higher than the letters O\ (of the reverse), coming, therefore, 0.98 m, below the top of the stele, or 0.10 m, below the bottom of line 52 (in S); numbering the lines on N 59 to 72, the beginning of a year appears in line 70, so that the preceding year would have contained thirty-five lines (34 to 68), practically the average number. On the narrow edge of N, furthermore, the blank surface appears at a distance of only 0.025 m. below the bottom of line 71 of the reverse, i.e., 1.135 m. below the top of the stele; as the first line of year XV is 0.58 m. below the top, with the spacing 0.0165 m. we have a maximum of thirty-three short lines in this year, as compared with forty-four in year XIV.

The fact that the column containing years XI to XIII had a length of only seventy-five lines is of considerable importance. The accounts of years XIV and XV, if they had not been written

considers to have been a permanent emergency fund, which was handed over each year like the gold staters, because of the coincidence that another large sum (between 200,000 and 500,000 drachmae) appears as a surplus in the seventh year; but a difficulty with this theory is that on fragment N (at the end of this second year, as will appear) there was no surplus except the gold staters.

<sup>1</sup> Not against R, as Keramopoullos states (op. cit. p. 198).

 $<sup>^2</sup>$  The bottom of line 56, in  $\hat{Q},$  is 0.875 m. below the top of the stele, and the spacing of the lines is 0.0156 m.

on narrow edges, would have occupied only twenty-four and eighteen lines respectively, a total of forty-four lines (including the intervals between the accounts). If the stelle had been 2.04 m. high, as I estimated from Column I,¹ it seems incredible that years XIV and XV would have been relegated to the narrow edges; for the forty-four lines could have been inscribed below year XIII, yet leaving an empty space of 0.185 m. at the bottom,² as compared with 0.088 m. and 0.195 m. below two columns of the obverse. The natural inference is that the stelle was not high enough to allow even the twenty-four lines for year XIV; that is, it was less than about 1.60 m.

Under these circumstances, it becomes impossible to place fragment | at the bottom of Column I of the obverse, where I was obliged to locate it because I had no precedent for a stele with as many as three double columns. Now, however, we have such precedent in the accounts I.G. I. 284-288, tentatively assigned to the Athena Promachos<sup>3</sup>; and we need not hesitate to restore three double columns for the Parthenon, fragment N coming near the bottom of the first, while T+I and M form the actual bottoms of the second and third columns respectively. This in turn relieves the congestion in the first four years, which formerly required the omission of year II, and in line 34 we are able to restore δευτέρας, which better fills the space between fragments F and R. The peculiar formula in lines 39 to 40 can still be interpreted as emphasizing the fact that the undersecretary was the same as in the preceding year. The reason for the double contribution from the treasurers of Athena in a single year (lines 45 to 50)4 still remains obscure.

A new examination of the fragments in the Museum has confirmed the rearrangement with three double columns. A straight diagonal crack which at present forms the left edges of L and G, and the right edge of B, on the reverse,<sup>5</sup> appears also on fragment J of the obverse, at the lower right corner, in such a way as to oblige us to place it immediately above the obverse of G. Fragment J does not actually touch the top of G or the back of L,

<sup>&</sup>lt;sup>1</sup> A.J.A. 1913, p. 77.

<sup>&</sup>lt;sup>2</sup> I.e.  $1.17+44\times0.0156=1.855$  m.; and 2.04-1.855=0.185 m.

<sup>&</sup>lt;sup>3</sup> See above, pp. 118–129.

<sup>&</sup>lt;sup>4</sup> Έφ. 'Αρχ. 1914, p. 205.

<sup>&</sup>lt;sup>5</sup> This crack is a final proof that L, G, and B, which do not come into actual contact, should be grouped as I had represented them.

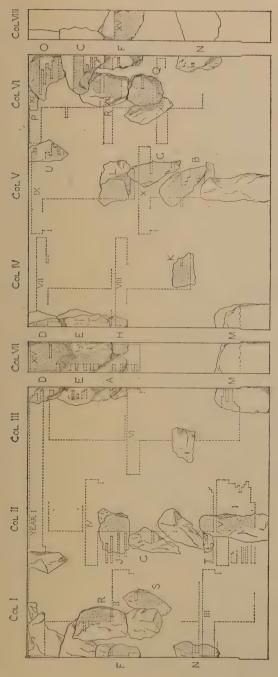


FIGURE 1.—THE BUILDING ACCOUNTS OF THE PARTHENON.

but there can be no doubt of the connection. The obverse of G must, therefore, be assigned to year IV, to which J belongs, as we know from its contents. Assembling the group B. G. I. J. L. and T, it appears that between the last line of J and the first of G (obverse) four lines must have intervened (the receipts of year IV covering, therefore, twenty lines); and between the last line of G (obverse) and the first of Lexists a gap of at least eighteen lines (the expenses of year IV covering, therefore, at least twentyfive lines). With the obverse of G thus located in year IV, the reverse would appear (if my former arrangement of the stele were to be retained) in year XIII, a position from which it is excluded by fragment O and by the fact that the demotic of the secretary to the Hellenotamiae in year XIII was 'Αγαρνεύς. But in the revised arrangement, with G coming between J and I near the bottom of the middle column of the obverse, G+B would appear on the reverse likewise near the bottom of the middle column. immediately preceding year XI at the top of the last column: the date is, therefore, year X, as we had ascertained from the contents of these fragments.

Only by this rearrangement, furthermore, can we obtain place for a new fragment of the stele, U, which raises the total number of fragments to twenty-one.<sup>2</sup> It preserves the reverse face and top of the stele, and contains the beginning of an annual account. The first receipt of the surplus occurs in line 8 (0.113 m. below the top) and so does not agree with Columns IV or VI; therefore we must place fragment U in Column V, where it forms the beginning of year IX, reading as follows:

Έπὶ τες ἐνάτες	åρχες hει	ἐγραμμάτευε.	]0≷
τει βολει	πρότος	έγραμμάτευε: Ι	Ίεργ]ι≤ΕΘΕΝ

5

έπιστάται hoîs 'Αντίκλες χσυνεγραμμάτευε] · τούτοις λέμματα το ένιαυτο τούτο τάδε

> παρὰ τον προτέρον ἐπιστ]ΑΤΟΝ χρυσο στατέρες Λαμφσακ]ΕΝΟΙ χρυσο στατέρες Κυζτκε]ΝΟΙ παρὰ ταμιον hoὶ τὰ τêς θ]ΕΟΕΤΑΜΙΕΥΟΝ

10

<sup>&</sup>lt;sup>1</sup> The crack is of a peculiar nature, with an offset at a depth of about 0.04 m, from the plane of the obverse.

<sup>&</sup>lt;sup>2</sup> Fragment U, unpublished, is in the Epigraphical Museum.

hοῖς . . . . . ἐγραμμάτεν] Ιν / [κ] ΙΑΔΕξ παρὰ Ηελλενοταμιῶν hοῖ] ξΕΡΛΟΦΙΝΟξ ἐγραμμάτενε . . . . . . ]Οξ παρὰ ταμιῶν Ηεφαιστικῶ] ΑΓΟΝΑΥΡΕ[ίο τῶμ π]ΕΝΤΕΜΕΡ[ῶν

18

15

]ET

The item to which II. 15-16 refer is obviously the same as that entered in the accounts of the Propylaea, Column III, ll. 14-15.4 The number of spaces before  $d\pi d$  in line 15 of the Parthenon stele is the same as the number in line 14 of the Propylaea account: therefore we may restore Ηεφαιστικό in the Parthenon account and, reciprocally, V[av]P[eio in that of the Propylaea.2 We are certainly concerned with one of the Laurium mines. which were usually named after divinities.3 such as Aphrodisiacum, Apolloniacum, Artemisiacum, Athenaiïcum, Demetriacum, Dionysiacum, Dioscuricum, Hermaicum, Pandrosiacum (?), and Poseidoniacum.4 And in fact we actually learn of a mine called the Hephaestiacum.<sup>5</sup> Apparently the state's share of the profits of this mine, or rather five-sixths of the income (if we may so interpret  $\tau \partial \mu \pi \epsilon \nu \tau \epsilon \mu \epsilon \rho \partial \nu$  in the next line), were used for building purposes. It is probable that the same entry is to be restored in year III (Col. II, ll. 44-45) of the Fropvlaea account, where we have the letters ΙΟΜι[έντε μερον]. There is sufficient space to insert it also in years I (Col. I, ll. 8-15), II (Col. I. ll. 60-62), and V (Col. IV, ll. 9-18) of the Propylaea accounts: no such entry occurs in the Parthenon accounts of the corresponding period 437-432 B.C. For the preceding decade, apart from the known entry in year IX of the Parthenon, it is possible

 $<sup>^1\,</sup>A.J.A.$  1913, p. 396 (on p. 384 we should read "treasurers of the Hephaesti(a)cum."

<sup>&</sup>lt;sup>2</sup> The fourth letter, which I formerly read T, seems rather to be P.

<sup>&</sup>lt;sup>3</sup> Ardaillon, *Mines de Laurion*, pp. 179–180; Roberts and Gardner, *Greek Epigraphy*, II, p. 312; Oikonomos, *Ath. Mitt.* 1910, p. 295.

<sup>&</sup>lt;sup>4</sup> I.G. II, 780-782 b; Ath. Mitt. 1910, pp. 274-322.

<sup>&</sup>lt;sup>5</sup> I.G. II, 782 b, 14; the second  $\alpha$  is certainly omitted in the Propylaea account, Heφαιστι(α)κô.

<sup>&</sup>lt;sup>6</sup> Possibly μέρος has the sense of ἀπονομή, implying that the *epistatae* received five shares of the many into which the state's income from the mines was divided (see Ardaillon, op. cit. pp. 197–198).

<sup>&</sup>lt;sup>7</sup> A.J.A. 1913, p. 393.

to restore it also in year X;<sup>1</sup> and it may well have appeared every year, since the receipts of years I, III, VI, VII, and VIII are completely lost, and those of years II, IV, and V contain sufficient space for such an item.

I now arrange the stele with eight double columns, three on each face and two on the narrow edges (Fig. 1). Since Column I included the beginning of year III, and Column II had the first part of year V, and since these two columns were probably of equal length (in neither case concluding a year's account), we may estimate that each contained ninety lines. Then Column III would have only eighty-three lines, allowing no space for year VII, which must be assigned to the reverse. On the reverse it is probable that Columns IV and V each contained the accounts of two years; each begins with an annual prescript, and we found that year X appeared at the bottom of Column V. And we know that in Column VI were three shorter accounts. The total height of the stele becomes 1.60 m., and the width 1.80 m.

Having attempted, in my previous article on this subject, to give a consecutive reading of all the extant fragments,<sup>2</sup> I now summarize all the later additions<sup>3</sup> and revisions, including the new numbering of the lines.

#### OBVERSE

#### Prescript, year I

1- 6. D gives the ends of the lines; with the increase in the width of the stele to 1.80 m., each line would have contained a maximum of 90 letters, spaced 0.019 m. on centres (I had formerly estimated 58 letters), making my earlier suggestion impossible.

#### Column I

- 7-22. Receipts; R giving the last line . . EN . .
- 23-33. Expenses; R+F, as restored by Keramopoullos, who numbers them 26-36; in 25, read [ογιας Πεντελεθεν; in 31, restore [ΔΔ]...
- 34-40. Prescript, year II; F+R, as follows: 34, EΠΙΤΕ δευτερασαρχες HΕΙΕ[.....εγραμματευε; 35, HΑνΑΙ[ευςτειβολειΑντ]ΙΔΟ[ροςπροτοςεγραμματευε; 36, ΣΤΡΑΤ [....; 37, ΣΑνΑΜ [....; 38-40 as in my previous publication.
- 41- ? Receipts; F+S, as follows: 41, Δ Λ [... παρελαβομενπαρατονπροτερ; 42, ονεπιστατο]N; 43-52 as restored by Keramopoullos, who numbers them 45-54.
- ¹ Col. V, Il. 60–61 (end of fragment G): παρὰ ταμιῶν Ηεφαι¸\$TII [δ ἀπὸ Λανρείο, and τ] ON Γ [έντε μερῶν; I had formerly suggested ἀργυρίο πραθέντο] \$TII [ὲ τούτο, and σταθμ] ON Γ (A.J.A. 1913, pl. III).
  - $^{2}$  A.J.A. 1913, pl. II, pp. 66–67, pl. III–IV, pp. 74–76 (fragments A-Q).
- <sup>3</sup> Referring to Keramopoullos, 'E $\phi$ . 'A $\rho\chi$ . 1914, pp. 198–201 (fragments R–T), and to pp. 238–239 above (fragment U).

- ?-68. Expenses; N gives parts of 59-68 (my former I, 90-99, omitting item column).
- 75-90. Receipts.

## Column II

- 7- ? Receipts.
- ?-22. Expenses.
- 24-28. Prescript, year IV.
- 29-48. Receipts; J+G; J gives 29-41 (my former I, 73-85; in 40, the preserved figure is M, not X), and G gives 45-48 (my former II, 35-38).
- 49-73. Expenses; G+T+1; G gives 49 (my former II, 39), I gives items of 68-73 (my former I, 94-99), and T gives ends of sums in 71 and 73 (Keramopoullos).
- 75-79. Prescript, year V; | as in my previous publication (I, 101-105, omitting N).
- 80-90. Receipts; I as in my previous publication (I, 106-116), with the following emendations: 80, restore . . . . ΔΗΗ IIII]; 81, read Λαμ; 85, restore [ιονhοιτατε;θεοεταμιενον]; 87, insert hois.

#### Column III

- 7- ? Receipts; D+E give the ends of 8-9 and 17-22 (my former II, 8-22).
- ?-36. Expenses; A gives the ends of 30-35 (my former II, 30-35).
- 38-42. Prescript, year VI (approximate location).
- 43- ? Receipts.
- ?-83. Expenses; M gives the ends of 76-83 (my former II, 102-109).

## REVERSE

#### Column IV

- 4-8. Prescript, year VII; D as in my previous publication (III, 4-8), restoring hεβδομες instead of ογδοες.
- 9-? Receipts; D gives the sums in 9-15 (my former III, 9-15).
- ?-36. Expenses; H locates the last line (my former III, 36).
- 38–43. Prescript, year VIII; H gives the beginnings of 38–41, as follows: 38, ΕΠΙ[τεσογδοεςαρχες hει . . . ; 39, ΠΡΟΒ[αλισιος τειβολει . . . ; 40, ΕΛΡ[αμματενε . . . ; 41, Χ≤Υ[πεταον . . . .
- 44- ? Receipts.
- ?-90. Expenses; K gives 63-70 (my former III, 94-101).

#### Column V

- 2-7. Prescript, year IX; U, as given above.
- 8-30. Receipts; U contains 8-18, as given above.
- 31-47. Expenses; L+G (my former III, 20-36).
- 49-54. Prescript, year X; G as in my previous publication (III, 38-43, omitting H); in 49, read [Επιτεςδεκατεςαρχεςhει . . . . . .]ΦΙνΟ≤ΕΛΡ [αμματενε.
- 55-66. Receipts; G+B (my former III, 44-55); read 60, παραταμιονΗεφαι]  $= TII[oaποΛανρειο]; 61, \dots, T]ONTΓ[εντεμερον.$
- 67-81. Expenses; B gives 67-77 (my former III, 56-66).

#### Column VI

- 1-4. Prescript, year XI; P+O (my former IV, 1-4).
- 5-16. Receipts; O (my former IV, 5-16).
- 17-31. Expenses; C+R (my former IV, 17-31, with R in the last three lines as shown by Keramopoullos).
- 36-40. Receipts: R+F, as restored by Keramopoullos.
- 41-53. Expenses; R+Q; R gives the first three lines (as restored by Keramopoullos), and Q gives 44-53 (my former IV, 56-65).
- 55-57. Prescript, year XIII; Q (my former IV, 67-69); read Αντιοχιδο.
- 58-62. Receipts.
- 63-75. Expenses: N gives the end of 71 (my former IV, 106).

#### RIGHT EDGE

#### Column VII

- 1-9. Prescript, year XIV; D (my former V, 1-9).
- 10-26. Receipts; D+E (my former V, 10-26).
- 27-44. Expenses; E+A+H (my former V, 27-44).1

#### LEFT EDGE

## Column VIII

- 1-9. Prescript, year XV; F (my former VI, 1-9).
- 10- ? Receipts: F gives 10-11 (my former VI, 10-11).
  - ?-33. Expenses.

On account of the numerous chronological changes involved, it seems advisable to reprint the historical summary which I formerly published.<sup>2</sup> as follows:

Year I, 447/6 B.C.; Timarchides archon, Diodorus of Paeonidae secretary to the Hellenotamiae. The Parthenon begun with Ictinus and Callicrates as architects. The famous gold staters were already in the treasury, where they remained for the fifteen years.<sup>3</sup> Payments were made for quarrying and transporting marble (though not yet for working it), for wages of carpenters and laborers, and for salaries of the *epistatae*, architects, and secretaries.

Year II, 446/5 B.C.; Callimachus archon, (Ant)idorus (?) first secretary to the senate, E—— of Halae secretary to the *epistatae*, Execestus of Athmone to the treasurers of Athena.

<sup>1</sup> The location of fragment H, fitting below A+E, as determined in my previous article, is correct, though at one period  $(A.J.A.\ 1913,\ p.\ 388,\ n.\ 1)$  the error in the word  $\kappa\alpha\tau\alpha\mu\epsilon\nu lois$  (*ibid.* p. 75), and the condition of the letters on the reverse, so enlarged by corrosion as to resemble those on the obverse, inclined me to doubt this attribution.

<sup>&</sup>lt;sup>2</sup> A.J.A. 1913, pp. 77-80.

<sup>&</sup>lt;sup>3</sup> Cf. J.H.S. 1914, p. 277.

Year III, 445/4 B.C.; Lysimachides archon, Eu—— secretary to the Hellenotamiae.

Year IV, 444/3 B.C.; Praxiteles archon, Strombichus of Cholleidae secretary to the Hellenotamiae. The earliest extant notice of the contribution of the  $\dot{\alpha}\pi a\rho\chi\dot{\epsilon}$  (then 42,675 dr. 5 ob.); Pericles accused by Thucydides of the misuse of the Delian funds; the charge dismissed and Thucydides ostracized. The new fleet of triremes finished and the surplus money (90,000 dr.) turned over to the Parthenon. Wood purchased, probably for scaffolding.

Year V, 443/2 B.C.; Lysanias archon, —os first secretary to the senate, Timotheus annual secretary to the *epistatae*, Anticles permanent under-secretary, Andr—secretary to the treasurers of Athena, Sophiades of Eleusis to the Hellenotamiae. The middle long wall finished by Callicrates, and the surplus money devoted to the Parthenon.

Year VI, 442/1 B.c.; Diphilus archon, Anticles under-secretary to the *epistatae*, Chalcideus of Melite secretary to the Hellenotamiae. The columns channeled.

Year IX, 439/8 B.C.; Glaucinus archon, Anticles under-secretary to the epistatae, ——of Laciadae secretary to the treasurers of Athena, Ergophilus to the Hellenotamiae. The only preserved entry of the receipt from the Hephaestiacum silver mine. Ivory bought, and silver ornaments made, for decorating the doors; payments to woodworkers and gilders (probably for the ceiling, the latter, perhaps, also for the marble mouldings). The marble now brought to the Ergasteria is probably to be in readiness for the pediment sculptures.

Year X, 438/7 B.C.; Theodorus archon, ——philus secretary to the *epistatae*, Anticles under-secretary, —— of Rhamnus (or

<sup>&</sup>lt;sup>1</sup> The appearance of the word 'Αθεναίοις whenever the archon's name is given in these records signifies that the documents were not purely local, and implies that the allies had formally destined the  $\dot{\alpha}\pi\alpha\rho\chi\dot{\epsilon}$  as their contribution toward the rebuilding of the Parthenon. I owe this suggestion to Professor W. S. Ferguson; a similar statement was made by Foucart (Rev. de Philologie, 1903, pp. 10–11; cf. Collignon, Parthénon, 1914, p. 41.

<sup>&</sup>lt;sup>2</sup> The name of Anticles may have appeared also in the four earlier prescripts.

Hagnus) secretary to the Hellenotamiae. The treasurers of Athena cease to contribute to the Parthenon, devoting all their efforts to the completion of the statue of Athena Parthenos. The statue completed by Phidias and dedicated at the Panathenaic festival; its surplus material turned over to the Parthenon by the *epistatae* of the statue, and part of the gold sold to assist in paying for the carving of the pediment sculptures (which were probably likewise the work of Phidias and his assistants). The Parthenon virtually completed, and surplus wood from the scaffoldings and roof sold. The pediment sculptures begun and work henceforth confined to them.

Year XI, 437/6 B.C.; Euthymenes archon, Peithiades first secretary to the senate, Anticles acting secretary to the *epistatae*. The Propylaea begun, whereupon the Hellenotamiae and the treasurers of the Hephaestiacum mine cease to contribute to the Parthenon, and the treasurers of Athena, instead of resuming their contributions for the construction of the Parthenon (now that the statue had been completed), likewise divert their funds to the Propylaea. Contributions from private individuals, hitherto given for the statue, now distributed between the Parthenon and the Propylaea. Surplus ivory and tin sold.

Year XIII, 435/4 B.C.; Antiochides archon, ——as first secretary to the senate, Anticles secretary to the *epistatae*, Thoinilus of Acharnae to the Hellenotamiae.

Year XIV, 434/3 B.C.; Crates archon, Metagenes first secretary to the senate, Anticles secretary to the *epistatae*, Crates of Lamptrae to the treasurers of Athena, Protonicus of the Ceranicus to the Hellenotamiae. As the Propylaea approach completion, the treasurers of Athena give part of their funds to the Parthenon sculptures. Of the total receipts (29,147 dr. 4 ob.) in this year, 16,392 dr. given as wages to the sculptors, and 1800 dr. as salaries to the *epistatae*, architects, and secretary.

Year XV, 433/2 B.C.; Apseudes archon, Critiades first secretary to the senate, Anticles secretary to the *epistatae*, Euthias of Anaphlystus to the treasurers of Athena, Philetaerus (or Philemonides) to the Hellenotamiae. The Parthenon sculptures completed and the accounts closed; Phidias accused of embezzlement and

impiety; the outbreak of the Peloponnesian War at the same time terminates work on the Propylaea and the Erechtheum.

## B. THE ERECHTHEUM

Fragment I.G. I, 414, hitherto missing, has recently been rediscovered in the Epigraphical Museum;<sup>1</sup> the forms and size of the letters are exactly like those of the obverse of the Chandler stele of the Erechtheum, and probably it formed part of the list of miscellaneous unworked stones near the end of Column II, between B and D.<sup>2</sup>

The accounts of 408/7 B.C. cannot be restored in the manner which I had proposed.<sup>3</sup> Against the location of Column II of K above Column I of M. the following objections may now be made: (1) From the 47 lines which I allowed for the frieze sculptures below K. Column II, must be subtracted (a) a few lines for the total payment to laborers and for the salaries to the architect and the under-secretary. 4 and (b) about 8 lines for the encaustic painters who certainly worked in the seventh prytany.<sup>5</sup> Therefore of the 47 lines formerly allowed for the frieze sculptures, above M. only 30 at most would now be available. The missing 2448 dr. of frieze sculptures could not possibly have been accounted for in this interval.<sup>6</sup> (2) A renewed examination of K has shown that the top is not original, as I formerly assumed, and that the bottom is cut in the same manner, not exactly level; both cuttings are mediaeval, and the amount lost at each end is more than 0.04 m. (the width of the drafted margin cut at the top and bottom of the edge of M).

The evidence now seems to demand (1) an increase in the width of the slabs to four columns (0.896 m.), which would agree, as well as three columns, with the evidence from the dowels, and (2) a return to Kolbe's arrangement of three tiers with a total height of  $3\times0.958=2.874$  m., each column normally containing 250 lines. Supposing that there were three vertical rows or series of slabs, K may be placed in the same slab with M, in the second tier of the second series (columns V-VIII); and as Kirch-

<sup>&</sup>lt;sup>1</sup> My attention was called to this piece by Dr. Fimmen.

<sup>&</sup>lt;sup>2</sup> See A.J.A. 1913, p. 245, fig. 1.

<sup>&</sup>lt;sup>3</sup> Ibid. p. 257.

<sup>&</sup>lt;sup>4</sup> My attention has been called to this by Professor Kolbe.

<sup>&</sup>lt;sup>5</sup> Hill, A.J.A. 1910, p. 294.

<sup>&</sup>lt;sup>6</sup> We should prefer about 61 lines (A.J.A. 1913, p. 257).

<sup>7</sup> Ibid. p. 258.

hoff and Kolbe proposed, P and L might be placed in the upper tier of this series (columns VI and VII-VIII respectively), and N in the lower tier (columns V-VI). The only fragment of the first series of slabs (columns I-IV) would then be O from the right edge, and, therefore, in column IV. On the third series of slabs would have been inscribed columns IX-X, from which we have seven fragments (in my former restoration assigned to columns X-XI), Q in the top tier, R and S in the middle tier, while U, T, W, and

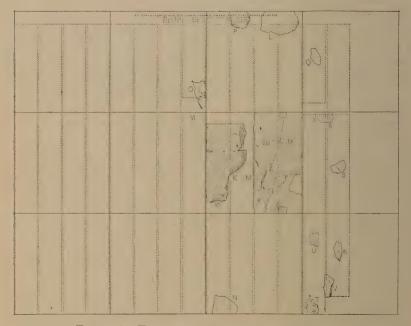


FIGURE 2.—ERECHTHEUM ACCOUNTS OF 408-7 B.C.

V remain as before in the lowest tier. Probably the remaining two columns on this third series of slabs remained unoccupied, and the accounts of 407/6 to 405/4 (X, Y, and Z) appeared on two separate slabs. It may be noted that this arrangement of three series of slabs (nominally twelve columns) in the year 408/7 would bring the main heading, as it now exists, directly in the centre of the central series, above columns VI-VII. To avoid the compression of the first six prytany accounts resulting from this scheme, however, I am of the opinion that we should add another series of slabs at the left, making four in all, K+M

appearing in the third series. The main heading on P+L can easily be so restored as to extend the proper distance to the left, covering the second and third series of slabs (Fig. 2); somewhat as follows:

# EPI≷TATAITONEOTOEMPODEIENHOITOAPXAIONAAADMAEP IEYKTEMONO≷APXONTO≷

A	HYՐO∧PAMMATEY≷	APXITEKTON
В	PYPAION	APXILOXO\$
٨	OTPYNEY≷	ANPYVEGEN

This allows space for the names of officials who, as well as the architect, required mention in the main heading.

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<sup>1</sup> The three fragments of the later accounts of 407/6-405/4 B.C. are not here repeated, their relative positions being as shown in my former article (A.J.A. 1913, p. 257).

# A GLOUP OF ROMAN IMPERIAL PORTRAITS AT

## II. Tiberius

## [PLATES VIII-IX]

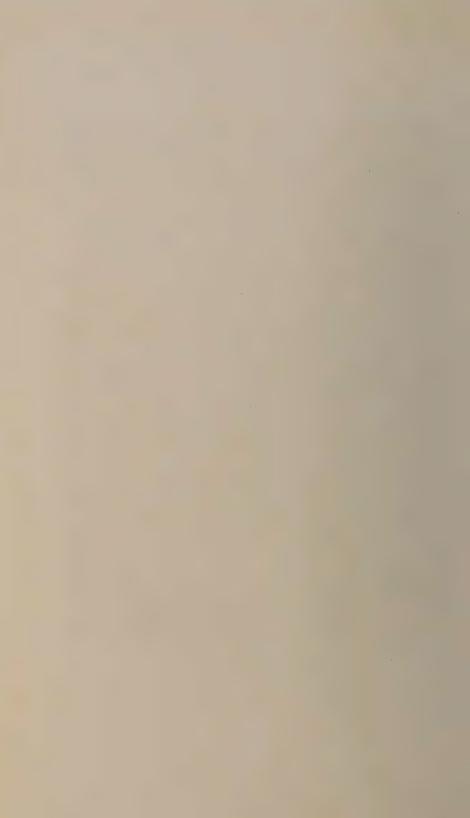
THE veiled portrait head which is now to be considered was found lying face downward in a stratum of soft reddish earth just within the east wall of the Roman basilica before mentioned. As was the case with the other sculptures discovered in this region, the statue to which the head originally belonged. seems to have stood on an upper floor of the basilica, and was overthrown and shattered in the general ruin incident to the earthquake which destroyed the building. As far as I could determine, no other certain fragments of this work were recovered, although there were brought to light several bits that may well have belonged to it, e.g., a fragment of well worked marble drapery which was found close beside the head, two small pieces of a leg or arm showing traces of dowelling, and two bits of carefully worked marble fingers less than twice life size. The layer of soft earth in which the head was imbedded and to which it doubtless owed its almost perfect preservation was made up apparently of decayed vegetable matter, perhaps the remains of the shattered planks and beams of the floor above, the gradual decay and settling of which had carried the head to the lower level unharmed. When found it was at a depth of between three and four meters.

The head is of an exceedingly fine grained Pentelic marble, white, with little or no signs of weathering, and is preserved from the base of the neck to the top of the veil (cf. Plate VIII); the break at the neck is diagonal, sloping sharply upward from front to back and extending to the folds of the veil below the ears; the rim of the right ear is also chipped, and a considerable portion of the edge of the veil above is missing. The face itself is perfectly

<sup>&</sup>lt;sup>1</sup> Cf. A.J.A. XXV, 1921, pp. 142 f.

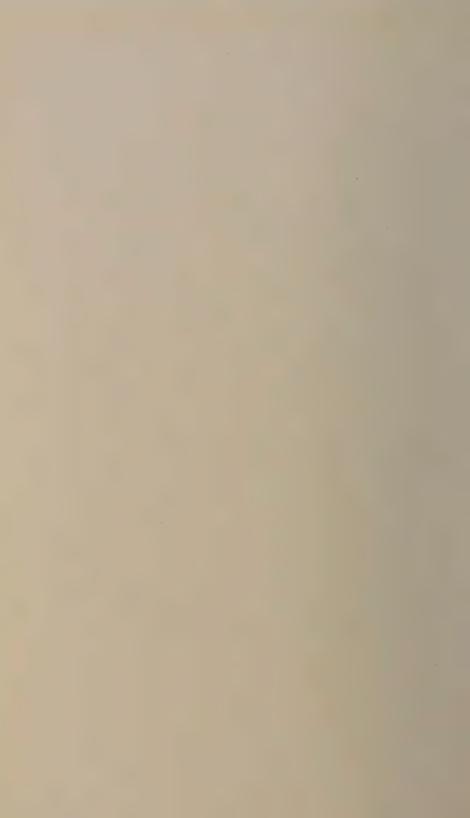


PORTRAIT OF TIBERIUS: CORINTH.





PROFILE OF TIBERIUS: CORINTH.



preserved; scarcely a scratch can be detected on its surface. In scale the work conforms closely to the Augustus. i.e., it is about one half larger than nature, its total height as it stands being 35 to .40 m., 2 and judging from the circumstance of the veiling we may conclude that it belonged to a statue of similar type head is turned a bit to the right and inclined slightly backward and upward in the same direction, while the neck, due perhaps to the breaking away of the veil which shadowed it, appears rather thick and awkward in proportion to the size of the face. most striking characteristics of the portrait as a whole are the very subtle modelling of the flesh surfaces, the light curly beard of remarkably fine impressionistic modelling upon the line of the jaw (cf. Plate IX), the free and plastic rendering of the hair. and the three-fold edging of the veil with its curiously flattened loop at the top. As in the Augustus, the back of the head and veil is crudely rounded off, showing that the statue was made to stand in a niche, or against the wall; and as in the former work, so here too, we note the grotesque forward position of the ears, a trait found to be characteristic of this type of representation.<sup>3</sup>

Before passing on to the iconography of the portrait there are a few details of technique which demand attention. First, the eyes are fairly wide, with a distinct upward cast and a rather dreamy expression (cf. Plate VIII); both the upper and lower lids are in clear relief, while the former overlap markedly at the outer corners. Though prominent, the eyes are not set forward in their sockets, and the eyeballs are treated in the flat and impressionistic manner already noted in the Augustus; an unusual detail appears at the inner corners, however, in the form of a membranous tissue inside the lids.<sup>4</sup> No trace of paint or incision is observable on the surface of the eyeball. The brows are strongly arched and marked by a sharp ridge for the greater part of their length, and considerable modelling appears about the eyes themselves, par-

<sup>&</sup>lt;sup>1</sup> Cf. A.J.A. XXV, 1921, p. 144.

<sup>&</sup>lt;sup>2</sup> Further dimensions: length of face .18 m.; length of neck .07 m.; width of face .14 m.; width of mouth .053 m.

<sup>&</sup>lt;sup>3</sup> Cf. A.J.A. XXV, 1921, p. 146.

<sup>&</sup>lt;sup>4</sup> Cf. Pl. VIII. A similar feature is found in a portrait head of Tiberius in Berlin, cf. Furtwängler, *Die Sammlung Sabouroff*, pl. XLIII and text, also Brunn and Arndt, *Gr. und Röm. Porträts*, Nos. 19 and 20. According to Furtwängler this portrait is not of Tiberius, but rather Augustus or Claudius; that it is of Pentelic marble, from Athens, and dates probably in the second century A.D. I feel certain, however, that it is an idealized Tiberius.

ticularly in the indication of the bony socket and in the roll of flesh which overhangs the outer portions of the upper lid. The handling of the flesh surfaces is masterly,—the modelling far superior in its delicate play of light and shade to that of any other member of the group, and the treatment of the hair with its thick curling locks shows remarkable freedom and life in spite of the fact that here again a fixed and definite iconographic scheme is followed. As also in the Augustus the drill was freely used, care being taken to disguise its effects wherever possible; the characteristic boring appears, however, at the corners of the mouth and along the line of the slightly parted lips, within the nostrils, about the ears, and in the deeply undercut folds of the veil. Surfaces are smoothly worked but unpolished, and on close examination reveal clear marks of tooling both with the fine point and the fine tooth chisel.

In its general finish and artistic completeness the work is much superior to the head of Augustus; it possesses, moreover, a distinct and striking personality, not altogether pleasing perhaps, yet far removed from the ideal, almost abstract rendering of the Augustan features. This unpleasant expression, though difficult of analysis, seems to reside in the rather weak and oversubtle line of the mouth, although the slightly oblique cast of the eyes serves also to heighten the impression. And yet the portrait, despite its marked individuality of conception and subtlety of modelling, partakes somewhat of the calm monumentality of the Augustus; in fact each portrait bears clearly the impress of a common atelier, but the hand which moulded the Augustus was far inferior both in technical skill and in penetrative and interpretative power to that which created the portrait before us.

As yet no assumption has been made as to the identity of the portrait under discussion. It is certain, however, that we have here to do with a likeness of Tiberius in his earlier years, not much later, at any rate, than his exile to Rhodes. Although this attribution may at first sight appear unconvincing, a close study of the available evidence will demonstrate that the conclusion is well founded.

The features of Tiberius are well known to us through contemporary portraits and descriptions; hence, having made due allowance for the usual diversity in conception and treatment, we may summarize as follows the characteristic traits of the Tiberian physiognomy. In profile the line of the forehead appears nearly

perpendicular save towards the top where it bulges slightly: the nose is vigorous, strongly arched and irregular, and generally rather pointed, the mouth small and receding, and the chin rounded and prominent. The hair is sometimes smooth, sometimes curly, and fringes the forehead in a rather angular profile: according to the description of Suetonius it grew low upon the nape of the neck, a trait not particularly stressed in the portraits, although the hair is generally represented as brought forward at the sides of the neck beneath the ears. His face was frank and open,3 his eyes large,4 and he walked with neck stiff and held at an oblique angle, his head and face drawn back.<sup>5</sup> This characteristic position of the head is generally rendered in the portraits. though for the most part softened to a slight inclination to the right or left. Of the less apparent traits, which are, however, none the less significant for iconographic purposes, I would mention particularly the distinct upward cast of the eyes and the well marked roll of flesh which stands above the lid at the outer corner:6 also the arching of the brows as they spring outward from the nose, a trait more characteristic of the youthful portraits:7 the shortness of the upper lip as compared with the lower,8 and the slight upward slant from left to right of the line of the hair as it passes across the forehead.9 A more subtle characteristic and one most difficult to distinguish in photographs is the very light line or furrow which extends downward on each side from the corner of the mouth, serving as it were to enclose the chin and give it added prominence; this trait naturally appears more clearly in those works which depict Tiberius as advanced in

<sup>&</sup>lt;sup>1</sup> Cf. Bernoulli, Römische Ikonographie, II, 1, pl. XXXII, Nos, 17–20,

<sup>&</sup>lt;sup>2</sup> Suetonius, Tiberius, 68 . . . capillo pone occipitium summissiore ut cervicem etiam obtegeret, quod gentile in illo videbatur.

<sup>&</sup>lt;sup>3</sup> Suetonius, loc. cit. . . facie honesta.

<sup>&</sup>lt;sup>4</sup> Suetonius, loc. cit. . . . cum praegrandibus oculis.

<sup>&</sup>lt;sup>5</sup> Suetonius, loc. cit. . . . Incedebat cervice rigida et obstipa, adducto fere vultu.

<sup>&</sup>lt;sup>6</sup> Cf., among many others, the seated statue and the colossal head in the Museo Chiaramonti, Amelung, *Die Sculp. des Vat. Mus.*, Tafelband I, taf. 60; also a bust in the Louvre, Bernoulli, *op. cit.* II, 1, pl. VII.

<sup>&</sup>lt;sup>7</sup> Cf. the works cited, and a head in the Capitoline Museum, Anderson Photographs, No. 1632.

<sup>8</sup> Cf. the works cited.

<sup>&</sup>lt;sup>9</sup> Cf. the head in the Capitoline Museum, Anderson Photographs, No. 1632; a colossal head and seated statue in the Museo Chiaramonti, Amelung, op. cit. I, taf. 60; and the head in the Louvre, Bernoulli, op. cit. II, 1, pl. VII, etc.

years,<sup>1</sup> yet it is generally present in the youthful portraits as well.<sup>2</sup> Finally, there remain to be noted particularly the breadth of forehead and temples, the tapering oval of the face, and the persistently similar arrangement of the locks of hair which frame in the upper part of the face. From the purely iconographic point of view the last mentioned, as also in the case of Augustus, is of prime importance; it appears in its most typical form in the following works: the seated statue in the Museo Chiaramonti;<sup>3</sup> a standing draped figure of bronze, in the Naples museum;<sup>4</sup> and a head in Berlin.<sup>5</sup>

Keeping in view the various portraits just mentioned, let us enumerate point by point the characteristic features of the Corinthian head and compare them with the canon as established.

In the first place, then, it is evident that there is considerable divergence in profile (cf. Plate IX). The forehead is not perpendicular but slopes backward somewhat.—although it should be noted in this connection that our photograph, because of the five-eighths pose of the head, exaggerates unduly this peculiarity; seen in true profile it is much less apparent. As to the bulge at the top, we may assume that it is present, concealed beneath the unusually luxuriant and projecting mass of hair. The nose, too, is less prominent and pointed, and is made to conform more closely to the ideal of classic regularity; we note, however, the characteristic indentation at the bridge as well as the abrupt break in the line of the nose itself. The mouth and chin are much nearer to the general type, particularly as regards the delicate curve of the former, the short upper lip, and the well rounded chin. The profile has, of course, been idealized considerably, yet without in any way altering its essential character; in fact there are extant other well authenticated portraits in which this process of idealization has been carried to even greater lengths.6

<sup>&</sup>lt;sup>1</sup> E.g. a head in the Capitoline Museum, Room of Caesars, No. 4, Bernoulli, op. cit. II, 1, p. 144, No. 1, Anderson Photographs, No. 1631.

<sup>&</sup>lt;sup>2</sup> Cf. the seated statue in the Museo Chiaramonti, Amelung, op. cit. I, taf. 60,—seated statue, ibid. taf. 67; a gem in Florence, Bernoulli, op. cit. II, 1, pl. XXVII, No. 8.

<sup>&</sup>lt;sup>3</sup> Amelung, op. cit. I, taf. 67.

<sup>&</sup>lt;sup>4</sup> Bronzi di Ercolaneo, II, 79, and Museo Borbonico, VII, 43.

<sup>&</sup>lt;sup>5</sup> Bernoulli, op. cit. II, 1, fig. 22.

<sup>&</sup>lt;sup>6</sup> Cf., for example, the colossal head in the Museo Chiaramonti, Amelung, op. cit. I, taf. 60 right.

In full face the forehead seems less broad and the diameter of the head at the temples is apparently diminished, yet this same unusual characteristic is to be marked, for example, in the well known bust in the Louvre. It is in the treatment of the eves and brows, however, that there are to be noted some of the most striking points of resemblance: the eves are large, they possess to a marked degree the distinctive upward cast<sup>2</sup> which is so characteristic of the more youthful portraits of Tiberius, they show the peculiar roll of flesh beneath the brow at the outer corner, and the brows themselves are arched in true Tiberian manner.<sup>3</sup> Furthermore, the lower half of the face, though not so tapering as is sometimes represented, yet furnishes remarkably close conformation to type particularly in the comparative brevity of the upper lip, the delicate, rather sunken curve of the mouth, the prominence of the chin, and the slight perpendicular lines which extend downward from the corners of the mouth.4 We note, too, the peculiarity mentioned by Suetonius, the stiff neck and the slight inclination of the head observable in the great majority of portraits.

If further confirmation be required it is amply provided by the iconographic scheme in which the locks of hair across the forehead are fixed. Although varied somewhat in different portraits, the same general division and arrangement of the strands holds good throughout, the few exceptions serving rather to prove the rule than to invalidate it. The central parting is either in the middle of the forehead<sup>5</sup> or very slightly to the left;<sup>6</sup> from this the hair divides in two masses curving right and left respectively, each subdivided into two, sometimes three or more smaller locks;<sup>7</sup> at the temples or, more exactly, above the outer corner of each eye, a group of two or three graceful locks curves sharply inward em-

<sup>&</sup>lt;sup>1</sup> Cf. A. Hekler, Greek and Roman Portraits, pl. 177.

<sup>&</sup>lt;sup>2</sup> Cf. a head in the Capitoline Museum, and another at Copenhagen, A. Hekler, *op. cit.* pl. 178 a and b; also the bust in the Louvre, Hekler, *op. cit.* pl. 177, and Bernoulli, *op. cit.* II, 1, pl. VII.

<sup>&</sup>lt;sup>3</sup> Cf. seated statues in the Museo Chiaramonti, Amelung, op. cit. I, taf. 60 and 67; also bust in Louvre, Hekler, op. cit. pl. 177.

<sup>&</sup>lt;sup>4</sup> For these features cf. our pl. VIII with Hekler, op. cit. pl. 178 a, pl. 177, and with Amelung, op. cit. I, taf. 60 both portraits.

<sup>&</sup>lt;sup>5</sup> Cf. Hekler, op. cit. pl. 176 b.

<sup>&</sup>lt;sup>6</sup> Cf. our Pl. VIII with Amelung, op. cit. I, taf. 60 centre; also with Bernoulli, op. cit. II, 1, fig. 22; and Furtwangler, Collection Sabouroff, pl. XLIII.

<sup>&</sup>lt;sup>7</sup> Cf. our Pl. VIII with Hekler, op. cit. pl. 176 b and pl. 177; also Bernoulli, op. cit. II, 1, fig. 22.

bracing the outer tips of the central mass,<sup>1</sup> while below at the temples and before the ears the hair is brushed forward in a free and unconventional manner.<sup>2</sup> Finally, it is only necessary to note the upward slant from left to right of the hair across the forehead, a detail which is peculiarly distinctive of the Tiberian iconography,<sup>3</sup> and to observe that in the Corinthian portrait the

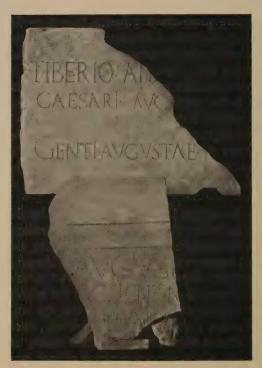


FIGURE 1.—INSCRIPTION FROM CORINTH.

hair is represented as growing unusually low upon the neck (cf. Plate IX).

But the final and conclusive proof of the attribution is provided by an inscription (Fig. 1. upper stone) found within the southwest corner of the basilica at about the same level and in the same sort of debris as that in which the head itself was discovered. The inscription, of beautiful monumental character, is engraved upon a polished slab of fine Pentelic marble,4 three edges of which are original

and show cuttings for the supporting clamps. Although the second word of the first line is extremely puzzling—not only to

<sup>&</sup>lt;sup>1</sup> Cf. our Pl. VIII with Hekler, op. cit. pl. 176 b and 177; Amelung, op. cit. I, taf. 60; or better Anderson Photographs, No. 1453; and Bernoulli, op. cit. II, 1, fig. 22.

<sup>&</sup>lt;sup>2</sup> Cf. Pls. VIII and IX with the works last quoted.

<sup>&</sup>lt;sup>3</sup> Cf. our Pl. VIII with Amelung, op. cit. I, taf. 60 centre; or Anderson Photographs No. 1453; also Hekler, op. cit. pl. 178 a and b; Nibby, Monumenti Scelti d. Villa Borghese, pl. 26; Bust in Naples Museum, Museo Borbonico, XIII, 42, 1; Statue in Naples Museum, Bronzi di Ercolaneo, II, 97, etc., etc.

<sup>&</sup>lt;sup>4</sup> Measuring .60 m. $\times$ .45 m. $\times$ .065 m.

restore conjecturally, but also because it interrupts the regular sequence of praenomen and nomen,—it is sufficiently clear from the context that we have here a dedicatory inscription to TIBERIUS CAESAR and the GENS AUGUSTA.

In spite, therefore, of the remarkable regularity of profile and the finely idealized modelling of the Corinthian head, it is certain that in it we are to recognize the features of Tiberius treated with a breadth, subtlety of characterization, and fineness of execution which put the work in a class quite by itself.

The portrait is of such an unusual and distinctive character that it is a matter of no little difficulty to discover analogous works with which it may be compared and classified; it is obviously youthful and thoroughly idealized, retaining withal an individuality and power which is entirely lacking, for example, in the Corinthian Augustus. Furthermore, although the great majority of the Tiberian portraits are remarkable for their youthfulness, most of the extant heads show, with no softening whatever, the line of his quite other than "classic" profile; few also can compare with the Corinthian portrait as a work of art or even as a work of portraiture, at least in the higher sense of the term. —in the sense, I mean, of the power to show forth under a more or less idealized aspect the essential personality of the subject rather than to give a photographic reproduction of his features. Indeed, of the eighty-odd portraits of this emperor listed by Bernoulli, only two-the bust in Munich and the Florentine cameo—are described by him as "idealisiert," although there are several others in which this tendency is observable to a considerable degree. Of the material available, therefore, the following works appear the more important and afford the closest analogies to the portrait at Corinth:

1. Bust in the Glyptothek, Munich, No. 314.<sup>2</sup> Tiberius is represented in early manhood, greatly idealized, with broad forehead which lacks the usual sharp break and indentation at the bridge of the nose; the mouth does not show the characteristic "sunken expression," and hence in this respect is very like the Corinthian portrait. Furthermore, the hair across the forehead is similarly treated in freely curling masses.

<sup>&</sup>lt;sup>1</sup> Cf. Bernoulli, op. cit, II, 1, p. 162.

<sup>&</sup>lt;sup>2</sup> Cf. Maffei, Verona Illustrata, III, 217, 3; Furtwängler, Besch. der Glyp. König Ludwig I zu München, Munich, 1900, No. 314, p. 322; and Bernoulli, op. cit. II, 1, p. 153, No. 54.

- 2. The Florentine cameo, with heads of Tiberius and Livia in profile.<sup>1</sup> This portrait is remarkable as exhibiting the same tendency toward the youthfully idealistic conception of the Tiberian features. Our portrait, however, carries this tendency one step farther in the softening, without loss of character, of the sunken appearance of the mouth.
- 3. Head in Berlin.<sup>2</sup> Although a "doubtful Tiberius," this head shows considerable stylistic affinity to the Corinthian portrait not only in its pose and type of face, but also in the modelling of the flesh surfaces, and in the generally idealistic conception. In addition, it produces a marked impression of personality behind the ideal, a peculiarity also of the Tiberius at Corinth.
- 4. Colossal statue in the Naples museum.<sup>3</sup> This can scarcely be called a portrait, since in it the idealization of the features is carried beyond all bounds; we see here, however, a different manifestation of the same tendency so apparent in the work at Corinth.

Mention has already been made of the comparative youthfulness of the Corinthian Tiberius, a trait which it has in common with the majority of extant portraits of this emperor. It is very difficult to account for this peculiarity, the more so since we must naturally suppose that by far the greater number of his portraits were set up during the period of his own reign, i.e., between his fifty-sixth and seventy-ninth year. We found the same true more or less in the case of Augustus also, although for him the explanation was quite simple, inasmuch as he ascended the throne at the age of thirty-two and became as it were the type of the ideally vouthful emperor. This theory will not suffice in the case of Tiberius since it is not likely that he was frequently honored with statues after his death, and, moreover, his youthfulness is seldom represented with noticeable idealization; as has been already noted, most of his extant portraits show an irregular profile quite unmodified in the sense of the so-called "classic ideal." Moreover, mere idealization would not demand that he be uniformly represented as a youth of twenty years.

This persistent youthfulness, then, is something of a riddle which can be but partially accounted for by the military fame to which Tiberius attained at a very early age. In this connection it will be remembered that, at the age of twenty-two, he was

<sup>&</sup>lt;sup>1</sup> Cf. Bernoulli, op. cit. II, 1, pl. XXVII, 8.

<sup>&</sup>lt;sup>2</sup> Cf. Furtwängler, "Die Sammlung Sabouroff," pl. XLIII.

<sup>&</sup>lt;sup>3</sup> Cf. Bernoulli, op. cit. II, 1, p. 149, No. 22.

sent to the East at the head of an army to put Tigranes on the throne of Armenia. This mission he not only accomplished satisfactorily, but—what loomed more grandly in the eyes of the average Roman and provincial—he also recovered from the Parthians the lost standards of Crassus. Five years later, in 15 B.C., he led a successful expedition against the Alpine tribes. and three years after that he conducted a brilliant campaign against the Pannonians for which he was rewarded with a triumph. Since he thereby established, as it were, his prospects for the succession to the throne, there can be no doubt that his victories were celebrated by the erection of many statues in his honor. In all probability, therefore, it was at this time that the prevailing youthful type of Tiberian portrait was established: and once this were accomplished the tendency toward alteration would be slight, the more so since the portrait sculptors and gem engravers seldom worked from a living model, and Tiberius himself as he advanced in years would doubtless prefer to keep his more youthful portraits before the people. Even after he came to the throne the younger type of representation must have lingered persistently, since in the great majority of his portraits he is shown as considerably younger than he was when he actually ruled.1

It is quite evident that the figure to which our portrait belonged must have been of the same general type as the Augustus of Corinth, must indeed have served it as a "companion piece" in the great imperial group of which each seems to have formed a part. The veiling of the head proves conclusively not only that the statue represented a togatus, but also that the pose and gesture were those of a person conducting a sacrifice according to the ritus Romanus, an essential observance of which was the velatum caput.<sup>2</sup> As far as it is possible to judge from the position of the head, direction of the gaze, etc., the pose was very like that of the Augustus.<sup>3</sup> although I consider it probable that, with regard to symmetry of grouping and composition, the weight of the figure may well have been shifted to the left leg. In fact the scale, type, technique and general treatment of the two portraits are so nearly identical that we may safely conclude not only that they were erected at about the same time, but also that they formed

<sup>&</sup>lt;sup>1</sup> For a fuller discussion see Bernoulli, op. cit. II, 1, pp. 161 f.

<sup>&</sup>lt;sup>2</sup> Cf. A.J.A. XXV, 1921, pp. 145 f.

<sup>&</sup>lt;sup>3</sup> Cf. the Augustus, Pl. V, with Pl. VIII of the present article.

in all probability component parts of a larger whole. The bodily forms, proportion, treatment of drapery, etc., must also in the case of the Tiberius have conformed closely to those exhibited by the Augustan figure; we see for example the same powerful rendering of the neck and throat, the same "stringy" quality of the drapery, and much the same treatment of the hair. It follows, therefore, that in this work we have another example of the neo-Attic school in Greece.

A further point worthy of note is that toga-clad statues of Tiberius, particularly those *velato capite*, are very rare. Bernoulli lists but one, the veiled statue in the museum of Aquileia; he mentions, however, three *statuae togatae* upon which have been set portrait heads of Tiberius not originally belonging to them, and of these one only has the head veiled.<sup>2</sup> To this list I would add a bronze portrait statue from Herculaneum now in the Naples museum, a work which discloses some interesting analogies to the Corinthian portrait both in iconography and in the treatment of the veil.<sup>3</sup>

Before terminating our discussion of the Tiberius at Corinth there remains to be considered the troublesome question of date; and here, also, as in dealing with the portrait of Augustus, our conclusions must be drawn entirely from internal evidence inasmuch as no exact data were furnished by the circumstances of the discovery itself.

We have already seen that the apparent age of Tiberius as represented is practically worthless as a criterion of date, since the great majority of his portraits, even those erected in the last year of his reign, are chiefly remarkable for their youthful character. The only conclusion to be drawn, therefore, is that this portrait was in all probability not erected before 20 B.C., the year in which Tiberius first attained to military distinction, being then at the age of twenty-two. A scarcely more reliable criterion is that furnished by the veiling of the head, a practice which, as already observed in the case of Augustus, is open to various interpretations; as regards Tiberius, however, the range of conjecture

<sup>&</sup>lt;sup>1</sup> Cf. the Augustus, Pl. V, with Pl. IX of the present article.

<sup>&</sup>lt;sup>2</sup> Bernoulli, op. cit. II, 1, p. 163.

<sup>&</sup>lt;sup>3</sup> Cf. Guida del Museo Naz. di Napoli, p. 198, No. 793; also Bronzi di Ercolaneo, II, 79; Museo Borbonico, VII, 43, etc. Bernoulli, op. cit. II, 1, p. 172, No. 16, classes the portrait under "Unbekannte Claudier," although he says "Er hat im Schädelbau und Untergesicht, zum Teil auch im Profil, grosse Aehnlichkeit mit Tiberius."

<sup>4</sup> Cf. A.J.A. XXV, 1921, p. 156.

is reduced somewhat by the fact that, in his case at least, the veiling could not be taken as an indication of deification, since it is extremely doubtful whether Tiberius was ever honored in this manner.¹ Furthermore, the theory which connects the veiling with a form of consecration in which the *genius* of the emperor takes an important part is vitiated by the fact that no statues of the *genius* type are known in the case of Tiberius, none certainly in which are to be discovered traces of a cornucopia as attribute.² Of the two possible remaining interpretations, that of the veil as a badge of the pontificate is, to say the least, doubtful. Nevertheless, I consider it worth while to review briefly the evidence bearing on the question, notwithstanding the fact that from our study of the Augustus we are already predisposed to discredit the theory.

From the entire list of the portraits of Tiberius which are known to me, four heads only are veiled; viz., the toga-clad statue in Aquileia;3 the head set upon a foreign toga-clad statue in Margam: 4 a bronze toga-clad statue in the Naples museum: 5 and the head at Corinth. Of these, the heads in Margam and Corinth are youthful, that of the statue in Naples is considerably older, while the apparent age of the portrait in Aquileia is unknown to me. We may, perhaps, assume that the last mentioned belongs to the majority, and is also youthful. How, then, do these apparent ages check up with the date of the assumption of the pontificate by Tiberius? At first sight rather unsatisfactorily, since Tiberius became Pontifex Maximus on March 10, 15 A.D., at the age of fifty-seven.<sup>6</sup> We have, however, a bit of evidence which would seem to indicate also a much earlier date; I refer to an inscription in Rome, published by Orelli, in which Tiberius is named Pontifex as of the year A.U.C. 747, i.e., 6 B.C. If both these dates be accepted it is evident that, in the case of Tiberius,

<sup>&</sup>lt;sup>1</sup> But cf. Pauly, Real-Encyc., s.v. Tiberius: In späterer Zeit erhielt auch er göttliche Verehrung; wenigstens kennen wir zwei flamines Ti. Caesaris Augusti, nämlich C. Egnatius Maro (Orelli, Inscr. No. 2217) und L. Cornelius L. f. Men., flamen Romae Ti. auf einer Inschrift aus Surrentum bei Garrucci, Mon. Baeb., p. 32."

<sup>&</sup>lt;sup>2</sup> Cf. A.J.A. XXV, 1921, p. 156.

<sup>&</sup>lt;sup>3</sup> Cf. Bernoulli, op. cit. II, 1, p. 154, No. 55.

<sup>&</sup>lt;sup>4</sup> Cf. Bernoulli, op. cit. II, 1, p. 153, No. 50.

<sup>&</sup>lt;sup>5</sup> Cf. Bronzi di Ercolaneo, II, 79.

<sup>&</sup>lt;sup>6</sup> Cf. Cohen, Méd. Imp. Rom. I, p. 119, No. 1; p. 121, No. 25; etc.; also Egbert, Latin Inscriptions, p. 125.

<sup>&</sup>lt;sup>7</sup> Orelli, Inscr. Lat. Sel. I, No. 599.

we at least have nothing to prove that the veil does not indicate the pontificate, since the apparent ages of the veiled portraits mentioned correspond fairly closely to the two dates at which Tiberius is known to have occupied this office. Thus the bronze in Naples would date ca. 15–16 A.D., the head in Margam, the statue in Aquileia (?), and the head in Corinth ca. 6–5 B.C.

Although the above argument is admittedly weak, it will serve to justify, at least provisionally, the assumption of ca. 6 B.C. as a terminus post quem for the Corinthian Tiberius. But the possibilities of arriving at a more definite conclusion in this matter are not yet entirely exhausted. We have still to investigate the interesting detail of the appearance of the beard in the Corinthian portrait, particularly with reference to a possible indication of date to be derived therefrom.

It is well known that the beard was not generally worn by Romans of the late Republic and the early Empire, the custom of going clean shaven holding sway from the late Hellenistic period to the reign of Hadrian. But apparently throughout this period the beard was worn in modified form by certain classes of men and under certain definite circumstances, since it appears occasionally on portrait statues and even more frequently on coins. gems, etc. We know that the Romans early borrowed from the Greeks the custom of consecrating to the gods the first beard of youth, a ceremony which was observed at about the twentieth vear. Thereafter the youth again allowed his beard to grow. and cultivated carefully not the entire beard, but the so-called barbula, which was merely a tuft of hair before the ears and along the line of the jaw. This seems to have been worn in more or less modified form until about the fortieth year, after which a man regularly went clean shaven. If a beard were worn thereafter it would be for some definite reason, unless, of course, it were allowed to grow through mere negligence, as was sometimes the case; in general, however, the beard at this time was considered the outward and visible sign of great affliction, motivated either by mourning for the death of a near relative, by a conviction at law, by the necessity of defending oneself against a public accusation, or by some great calamity. Thus, for example, Caesar, after

¹ But cf. Dio, XLVIII, 34. In recording events of 39 B.c., when Octavian was twenty-four years of age, he says of him "άμέλει τὸν πώγωνα ὁ Καῖσαρ τότε πρῶτον ξυράμενος αὐτός τε μεγάλως ἐώρτασε καὶ τοῖς ἄλλοις ἄπασι δημοτελή ἐορτήν παρέσχε. καὶ ὁ μὲν καὶ ἔπειτα ἐπελειοῦτο τὸ γένειον . . ." etc.

the defeat of his legate Titurius in Gaul, allowed his hair and beard to grow, as did Cato after the battle of Thapsus, Marc Antony after the battle of Mutina, Octavius after his rupture with Sextus Pompeius, and later after the defeat of Varus. We know further that on certain coins and engraved gems aged emperors are represented as youthful and wearing the barbula, although the individual portraits are proved to have been made after the death of the person represented. A remarkable example of this is seen on a coin of Julius Caesar, struck sometime after his death; although Caesar is regularly represented as beardless in all his other portraits, he here appears with the barbula. There is but one possible explanation for this, viz., that it symbolizes his apotheosis as proclaimed by the Senate, and it thus becomes, as it were, the sign of the eternal youth assumed by the departed. Many other examples of the same sort might be cited.

It seems, then, that the beard worn by the Tiberius of Corinth is open to explanation on several different counts,<sup>5</sup> all but one of which must be eliminated if accuracy of dating is to be obtained.

First of all, we may reject the hypothesis that the beard is in this instance to be interpreted as an indication of apothesis, inasmuch as we have already seen that Tiberius was apparently not thus honored—certainly not until a considerably later date.<sup>6</sup> We may likewise discard the theory that Tiberius is here repre-

- <sup>1</sup> Suetonius, Div. Iul. 67; "Diligebat quoque usque adeo, ut audita clade Tituriana barbam capillumque summiserit, nec ante dempserit quam vindicasset.
- <sup>2</sup> Cf. Suetonius, Div. Aug. 23; "Adeo denique consternatum ferunt, ut per continuos menses barba capilloque summisso caput interdum foribus illideret."
  - <sup>3</sup> Cf. Daremberg et Saglio, Dict. des Antiq. Gr. et Rom., fig. 788.
- <sup>4</sup> Cf. Daremberg et Saglio, Dict. des Antiq. Gr. et Rom., s.v. Barba, for the whole subject.
  - <sup>5</sup> Possible interpretations of beard:
    - 1. Sign of anotheosis.
    - 2. Worn through mere negligence.
    - 3. Worn as indication of youthfulness, either
      - a. Before first consecration of beard at ca. 20 yrs.; for Tiberius,
         22 B.c.
      - b. As barbula, from 20 to ca. 40 yrs.;—for Tiberius, 22–2 B.C.
    - 4. Worn as a sign of affliction, because of
      - a. Conviction at law.
      - b. Necessity of acting as defendant in a trial.
      - c. Great public calamity.
      - d. Death of a near relative.
  - <sup>4</sup> Cf. p. 259, and note No. 1.

sented with a beard worn through mere neglect of his personal appearance since, quite aside from the fact that no statement of such negligence on his part is made by any of the numerous ancient writers who mention him, it is highly improbable that a characteristic of this sort would be perpetuated in a work of art so obviously idealized as is the head at Corinth. That the beard is here shown as a mere indication or attribute of blooming youth is an assumption more difficult of contravention, particularly in view of the fact that the portrait is so obviously vouthful. Nevertheless, it seems to me that, although not actually capable of being disproved, this theory may be considerably weakened. We have already observed that, taken as a whole, the series of extant portraits of Tiberius is remarkable for its generally youthful character; if, then, the beard really served at this period as an attribute of youthfulness in imperial portraiture, we might reasonably expect to find it represented with some frequency in the Tiberian series. As a matter of fact, however, the head at Corinth is, to the best of my knowledge, the only sculptured portrait of Tiberius in which this feature occurs. Bernoulli<sup>2</sup> mentions an onyx on which is represented a mail-clad bust facing to the right, "mit leicht sprossenden Lippen- und Kinnbart"—a very doubtful portrait of Tiberius, as Bernoulli himself is free to admit; from which circumstance we are justified, it seems to me, in excluding it from the argument. Furthermore, bearded portraits of this emperor are a rarity even on coins, and few, if any of this type, are to be dated from his early years. Take, for example, the bronze struck at Lyons in 10 A.D., when Tiberius had reached the age of fifty-two. Here, although the features are rather vouthful for one of mature years, by no possible stretch of the imagination can the short cheek-beard be interpreted as in itself an indication of youthfulness, or as so intended on the part of the die-cutter. In fact it can be explained only on the ground that it is here worn as a sign of mourning for the defeat of Varus which occurred in the previous year. All things considered, therefore, it seems highly improbable that the beard of the Corinthian portrait should be interpreted as a mere badge of youth.

<sup>&</sup>lt;sup>1</sup> Cf. with the specific mention of Augustus in this sense, Suetonius, Div. Aug. 79 . . . quamquam et omnis lenocinii neglegens. . . ."

<sup>&</sup>lt;sup>2</sup> Op. cit. II, 1, p. 158, No. q., pl. XXVIII, 1.

<sup>&</sup>lt;sup>3</sup> Cf. Bernoulli, op. cit. II, 1, p. 141, and pl. XXXII, 19; also Mongez, Icon. pl. 22, 6; Lenormant, Icon. pl. IX, 2; and Cohen, op. cit. I, p. 192, No. 28.

We are thus reduced to the conclusion that, in the case at least of the Tiberius at Corinth, the beard is worn as a sign of affliction. This is further borne out by the fact that the hair is also extremely long and thick, and in this respect quite different from the great majority of portraits, where it is noticeably scant and close fitting.1 It remains, then, to decide to what particular misfortune suffered by Tiberius it should be referred. In this connection we can immediately exclude the possibility of its having any reference to an action at law since, although the emperor and the members of the royal family were still at this period subject to the common law at least in theory, it is well known that, as a matter of fact, they were quite above it. Of the two remaining possibilities mentioned, that which would explain the beard as a sign of grief for a great public calamity seems the less probable inasmuch as public misfortunes of any considerable magnitude were, in the first place, comparatively rare in the period of the early Empire, once the civil war incident to the establishment of Augustus upon the throne had been concluded. In fact the only outstanding calamity of the whole period comprised between the battle of Actium, 31 B.C., and the death of Tiberius was the defeat of Varus in the battle of the Teutoburgerwald, 9 A.D. That the latter should be regarded as occasioning the beard worn by the Tiberius at Corinth seems extremely doubtful since, if such were indeed the case, we might logically expect the other members of the Corinthian group to appear bearded for the same reason. Such, however, is not the case, and hence we conclude that the grief here commemorated must have been of a more private and personal nature. Exactly what this was appears at first sight difficult to say, since Tiberius is known to have been in mourning on a number of different occasions. A closer study of the circumstances of the latter, however, will enable us to select one among them as the most probable. Furthermore, in so doing we may exclude from consideration any private losses which Tiberius suffered previous to the year 6 B.C. which, as we have already seen, is to be taken as the probable terminus post quem of the work.

Briefly, then, the losses by death in the Julio-Claudian house between 6 B.C. and 37 A.D., when Tiberius himself died—losses, at least, in which Tiberius was presumably sufficiently interested to

<sup>&</sup>lt;sup>1</sup> For long hair as well as beard cf. Suetonius, Div. Iul. 67 . . . "barbam capillumque summiserit" . . ; Div. Aug. 23 . . . "barba capilloque summisso."

signalize his grief by the outward assumption of mourning—are: 1. The death of his stepsons Lucius and Gaius Caesar in 2 and 4 A.D. respectively. 2. The death of Augustus in 14 A.D. 3. The death of his nephew Germanicus in 19 A.D. 4. The death of his son Drusus in 23 A.D. 5. The death of his mother Livia in 29 A.D. Of these the last four may be eliminated at once from our problem. We have already decided that the portrait of Augustus at Corinth was set up during the lifetime of the latter: we have also observed the many and striking affinities in style, technique. scale, material, etc., exhibited by the Corinthian portraits of Tiberius and Augustus and have concluded that they were in all probability erected at about the same time as members of a single group; this granted, it is evident that the beard of Tiberius is worn neither in mourning for the death of Augustus nor for any of the losses suffered thereafter, but for a bereavement occurring between the years 6 B.C. and 14 A.D. This can only be the death of one or both of the young Caesars his stepsons.

So far so good: but a serious difficulty presents itself. If the two Corinthian portraits were set up at the same time, let us say ca. 4-5 A.D., how does it happen that the Tiberius alone wears mourning for the two young Caesars whereas Augustus, their maternal grandfather, is not so represented? The omission appears the more remarkable when we consider that to the latter their death was undoubtedly an occasion for real grief and keen disappointment, whereas to Tiberius it could not have served otherwise than as a cause of rejoicing, 2 a relief and rejoicing which, however, was necessarily dissimulated most carefully beneath a show of mourning. Several explanations are possible, though all are problematical. We may well suppose that work had been started on the group as early as 1-2 A.D., before the death of Lucius Caesar.<sup>3</sup> The Augustus would naturally be one of the first portraits undertaken and completed, whereas the Tiberius would as certainly have been one of the last; in fact it is scarcely probable that Tiberius, due to his banishment and the general disfavor into which he had fallen at Rome, would have been honored at all with a statue between the years 6 B.c. and 3-4 His fortunes seem to have been at so low an ebb, and the assumption of his unpopularity at court so firmly established,

<sup>&</sup>lt;sup>1</sup> Cf. A.J.A. XXV, 1921, p. 157.

<sup>&</sup>lt;sup>2</sup> Cf. Suetonius, Tiberius, 13.

<sup>3</sup> Obiit August 20, 2 A.D.

that certain of his portraits in the provinces were at this time even thrown down.¹ On the other hand, this attitude must have been immediately reversed upon his recall to Rome,—a reversal further accentuated and soon converted into open flattery by the speedy deaths of Lucius and Gaius, and his own subsequent adoption by Augustus. Indeed there would then be every reason for adding to an imperial group the portrait of Tiberius who also, as heir apparent to the throne, might well be represented under an aspect similar to that of his stepfather the Emperor; quite naturally, also, he would be shown as in mourning for his own stepsons Gaius and Lucius.

The above theory is advanced with considerable hesitation and in full realization of the difficulties involved in its acceptance. However, in view of the fact that there is a considerable body of evidence bearing upon this question yet to be adduced from a study of the remaining statues of the group, I can only request that in the present instance final judgment be suspended. We may say, therefore, that, up to the present at least, the general trend of the available evidence indicates a date of ca. 1 A.D. for the Augustus, and of ca. 4 A.D. for the Tiberius.

In conclusion I must insist once more upon the remarkably fine quality and the genuine artistic merit of the portrait of Tiberius at Corinth. Not only is the work itself of unusual excellence from the technical point of view, giving evidence of a grasp of form and rendering and a skill in craftsmanship quite worthy of the best Greek tradition, but also—what is, perhaps, more important—it presents to us an entirely new and highly idealized interpretation of the inner character as well as of the outward appearance of a prince much slandered in his own and later ages,—a man whom we may well believe, as we study this latest likeness handed down to us from the mists of antiquity, to have been "more sinned against than sinning."

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<sup>&</sup>lt;sup>1</sup> Cf. Suetonius, Tiberius, 13 . . . "contemtior in dies et invisior. adeo ut imagines eius et statuas Nemausenses subverterint." . . .

## A GROUP OF ARCHITECTURAL TERRA-COTTAS FROM CORNETO

In a series of papers, which have appeared in this JOURNAL,¹ some written in collaboration with Dr. Leicester Bodine Holland,² and others written unassisted, I have endeavored to describe in a manner adequate to their importance the fine collection of Etruscan architectural terra-cottas existing in the University Museum in Philadelphia, and, to a lesser extent, in the Metropolitan Museum in New York. The articles that have appeared the more recently have dealt with a series of antefixes from Cervetri. It is the purpose of this paper to discuss a very interesting group of antefixes and fragments from Corneto.

Like all the other items in the collections of architectural terracottas belonging to the University Museum, these were acquired by means of the good offices of Professor A. L. Frothingham, and were divided into two parts on reaching this country, of which the larger came to Philadelphia, and the smaller to the Metropolitan Museum in New York.<sup>3</sup>

Figure 1 shows them as they appeared when they were found, and before they had left Italy. It will be seen that they were a large and imposing group of architectural fragments. One piece shown there, a revetment, will be recognized by those who have followed these studies in Etruscan architectural terra-cottas as

¹ 'An Etruscan Openwork Grill in the University Museum, Philadelphia,' A.J.A. XXI, 1917, pp. 296–307 (with Dr. Holland), 'Terra-cotta Revetments from Etruria in the University Museum, Philadelphia,' *Ibid.* XXII, 1918, pp. 319–339 (with Dr. Holland); 'Note on Etruscan Architectural Terra-cottas,' *Ibid.* XXIII, 1919, pp. 161–62; 'Archaic Antefixes from Cervetri in the University Museum, Philadelphia,' *Ibid.* XXIV, 1920, pp. 27–36; 'Etruscan Shell Antefixes in the University Museum, Philadelphia,' *Ibid.* XXIV, 1920, pp. 352–369.

<sup>2</sup> Now Fellow in Architecture at the American School of Classical Studies at Athens.

<sup>3</sup> As usual, I am under an obligation of sincere gratitude to the authorities of the Metropolitan Museum for much courtesy and kindness.

having already been published.<sup>1</sup> In publishing it, the writer and Dr. Holland agreed in assigning it to the third century B.C.; and there is no reason to dispute this date, but rather to confirm it, from the evidence offered by the antefixes themselves.

No definite information has been available to tell us at what part of the ruins of the ancient Tarquinii these fragments were found. We cannot, therefore, determine what shrine was adorned by these terra-cottas. In date they are late in the Etruscan period, later, indeed, than the bulk of the tombs in the justly famous necropolis. They are said to have been exca-

vated in 1895–1896, and were acquired by Professor Frothingham in 1896–1897.<sup>2</sup>

All of the fragments, with the exception of the piece of revetment mentioned above, are of antefixes, of the "shell" or "canopy" type; and it must be admitted at the start that they are not so interesting or so fine as those of this type from Cervetri.<sup>3</sup> In the first place, they are of later date, and the technique, while perhaps more perfect than in



FIGURE 1.—ARCHITECTURAL TERRA-COTTAS FROM CORNETO.

the former examples, is, nevertheless, softer and less virile. Secondly, they are not nearly as well preserved. In no case does any antefix retain its complete "shell," and, therefore, it is harder to discuss the "shell" ornament, and practically impossible correctly to restore this decoration in detail. A third reason lies in the fact that we have little or no opportunity, as in the specimens from Cervetri, to trace the development of one type from another. Of this Corneto group, only three types exist, one male and two female, and they are all synchronous. These types will be numbered I, II, and III; while a fourth type, of much later date, and only included for the sake of completeness, will be called Type IV.

<sup>&</sup>lt;sup>1</sup> Luce and Holland, A.J.A. XXII, 1918, p. 328, No. 9, and pl. IX, No. III.

<sup>&</sup>lt;sup>2</sup> As far as is known, the objects to be described have not before been published; nor have I been able to find examples of the types which they represent in any of the Italian publications accessible to me in writing this paper.

<sup>&</sup>lt;sup>3</sup> Luce, A.J.A. XXIV, 1920, pp. 352 ff.

Type I is one of the two female types, and is by far the most common, and the best preserved, of all. I know of nine specimens in this country alone, to say nothing of what there may be in Italy. Of these, six are in Philadelphia, and three in New York. The best preserved examples are two in Philadelphia, bearing the accession numbers MS1824 and MS1825.¹ To illustrate the type, No. MS1824 has been selected for publication (Fig. 2).

In their original state these antefixes must have been very brilliant. One of the examples in Philadelphia, No. MS1818,<sup>2</sup> proves this. Although on this specimen practically the entire shell has been broken away, the face is in perfect preservation,



FIGURE 2.—ANTEFIX FROM CORNETO: Type I.

and the colors are nearly all still quite fresh, revealing the following color-scheme: The flesh is of a brilliant and rather chalky white; the lips. pupils of the eyes, lashes, evebrows, and hair are of a red, which, in spite of its darkness, is nevertheless very striking: while the diadem worn on the head is a bright orange yellow. The top of the diadem, and the veil, which is represented as worn over it. and resting on the back of the head, are red and white.

One of the specimens in Philadelphia, No. MS1820³, has preserved a fragment of the base in front, on which the antefix rested;⁴ and the color-scheme there seems to have been a maeander pattern of white on a red ground; but the color is so poorly preserved on this specimen that we cannot arrive at any definite conclusions.

It will be asked if there is evidence to believe that the colorscheme described above applies equally well to all the antefixes of this type; and this point is well taken. In the Cervetri speci-

<sup>&</sup>lt;sup>1</sup> As exhibited in the case, they bear the numbers 264A and 264B.

<sup>&</sup>lt;sup>2</sup> Case number, 252A.

<sup>&</sup>lt;sup>3</sup> Case number, 252C.

<sup>&</sup>lt;sup>4</sup> This is the only specimen of the nine in which any of the base remains.

mens, we have seen that in minor details the antefixes differ from each other quite freely in the choice of colors employed. It must be admitted at once that no answer can be given to such a question, but that it is assumed, perhaps without warrant, that the color arrangement is the same on all the specimens of this type that we have.<sup>1</sup>

The hair, which is worn parted in the centre, falls in waves along the forehead, and there are ringlets behind each ear, along the neck. The impression which the modeller seeks to create is of masses of hair; and this effect is very well obtained.

The design of the "shell" is of a tendril pattern, a marked departure from the conventionalism of the "shell" antefixes of

earlier date, with their tongue patterns or palmette-lotus design. The leaves, branches. buds and flowers are rendered. as shown in Figure 2, in a most naturalistic and free style, indicating great knowledge on the part of the modeller, and the despair of the restorer of the pattern, as there is none of the top left on any of them to show how they went. Their colorscheme seems to have been to have the design in white on a background of which the inside was red, and the outside appears to have been black.



FIGURE 3.—PROFILE OF ANTEFIX FROM CORNETO: Type II.

In many cases considerable portions of the cover-tile remain at the back, which is held to the antefix by a short, thick, and solid buttress of terra-cotta, of the type shown in Figure 3, where the buttress of a male antefix of Type II is illustrated. It is the writer's belief that it is due to the structural deficiency of this type of buttress that these antefixes are so much less well preserved than those from Cervetri. A comparison of Figure 3 with the buttresses on the Cervetri specimens (Fig. 4) shows that

<sup>&</sup>lt;sup>1</sup> See the color-scheme charts in Luce, A.J.A. XXIV, 1920, pp. 361, 366–367 for Types IV and V of the "shell" antefixes from Cervetri, to see how these specimens differ from each other in minor details of color.

in the case of the latter, the buttress was set further back on the cover-tile, and, therefore, gives the "shell" a firmer support, as it is necessarily of greater size and strength to accomplish this result. In the case of the Corneto group, the buttress is set too close to the junction of the antefix with the cover-tile to afford any great support to the "shell." The result is that the buttress is short and inadequate, and leaves the upper part of the canopy without any support whatever. The phenomenon exists in three of the six specimens in Philadelphia of Type I, for instance, of the buttress being completely preserved, while the top of the



FIGURE 4.—PROFILE OF ANTEFIX FROM CERVETRI: PHILADELPHIA.

canopy is missing; and this occurs on only one of the specimens from Cervetri, while the contrary is true in many instances in that group; namely, that the "shell" exists while the buttress is missing. This buttress, then, in the opinion of the writer, is inadequate and useless as a support to the canopy of the antefix.

It will here be convenient to list the number of specimens of the Corneto Type I that have been found, giving in each case the amount of the original preserved. To this will be appended a chart of dimensions which should

enable the reader to see at a glance the slight variations existing in the different examples.

- 1. Philadelphia MS1818. Parts preserved: head and small part of "shell," and the buttress. In no place does the full width of the "shell" exist. The colors on this specimen are unusually well preserved, and form the basis for the color-scheme evolved at the beginning of this paper.
- 2. Philadelphia MS1820. Parts preserved: face up to diadem; a part of the base at the right, and a large portion of the lower right hand part of the "shell." The left part of the neck is gone, as

<sup>&</sup>lt;sup>1</sup> Philadelphia Accession No. MS1826, of Type V of the Cervetri antefixes.

well as the top of the head, including the diadem and veil. A small part of the cover-tile is left, but the buttress is missing. This is the only specimen of this type with any of the base preserved. This base is 2.5 cm. high, and is apparently decorated with a maeander pattern in white on a red ground; but as much of the color is gone, it is impossible to state this with accuracy.

- 3. Philadelphia MS1824. Published in Figure 2. Parts preserved: head; left side of "shell" complete for about half way up, and small parts of the top and right side, but in the former case not enough to give any idea as to how it should be restored. The buttress is preserved. Broken off at the neck, so that the base is missing.
- 4. Philadelphia MS1825. Parts preserved: head to chin (chin broken away); right side of "shell" complete about one third of the way up, and small fragments of the "shell" at the top and left. The buttress is preserved, but none of the covertile.
- 5. Philadelphia MS1827. Parts preserved: head (portion of right part of head lost); and small portions of "shell" at the top and the left side. The buttress is missing.
- 6. Philadelphia MS2143. All that remains of this specimen is the top of the head, with the hair, diadem, and veil, and the beginning of the top of the "shell." The top of the buttress is also preserved.
- 7. New York GR1025. Parts preserved: head, neck and beginning of base at centre, and fragments of the bottom of the "shell" at left and right, and the beginning of the top as well. The buttress is also preserved. The colors are nearly all missing, and the specimen has a battered look.
- 8. New York GR1026. Parts preserved: head to chin; and a small piece of the top of the "shell," but not enough to make it possible to effect a restoration. There has been a slanting break at the left, that has taken away most of the left background of the face.
- 9. New York GR1029. Parts preserved: head, and part of the beginning of the shell at the top. The background of the head has entirely gone. The colors on this are better preserved than on any of the other New York specimens.

In the chart that follows, it will be noticed at once how very uniform the inner measurements (i.e., those of the head) are. This proves that a very uniform clay was used for each specimen,

and that due allowance seems to have been made for shrinkage in the mould

CHART OF DIMENSIONS OF ANTEFIXES FROM CORNETO, TYPE I

Example	Height Over All	Width Over All	Height of Face, Chin to Veil	Width of Face	Width of "Shell"
Philadelphia MS1818	21.7	19.3	17.0	12.9	sk
Philadelphia MS1820	19.7	19.8	14.2	12.9	a)c
Philadelphia MS1824	25.3	29.8	17.0	13.0	10.0
Philadelphia MS1825	21.0	29.8	16.1†	12.9	11.0
Philadelphia MS1827	25.3	20.8	17.0	13.0	*
Philadelphia MS2143	. 15.3	17.0	5 ¢ -	*	*
New York GR1025	24.8	24.6	17.2	12.9	*
New York GR1026	25.0	22.1	17.0	12.9	*
New York GR1029	20.0	20.4	17.0	12.9	. *

All dimensions are given in centimetres.

On the basis of Figure 1, and also because of the fact that only in Type I is any of the "shell" preserved, it seems best here to discuss a number of fragments of antefix canopies that are also said to have been found at this site. All of them are in Philadelphia. Two are illustrated in Figure 1; but they bring with them others, the design of which proves them to come from the same site. They will be discussed in detail, beginning with those of which the provenance is fixed by Figure 1.

- 1. Accession No. MS2130. Small fragment of antefix canopy, showing a tendril and vine decoration, almost the same as that existing on the Type I group, with slight variations, which prove that it cannot have come from an antefix in that group. Appears in Figure 1.
- 2. Accession No. MS2132. A larger fragment with the same design as the preceding. Evidences of color remain, showing a scheme of the design in white on a background, of which the inner part appears to have been red, the outer part black. Appears in Figure 1.
- 3. Accession No. MS2182. Small fragment, giving part of the tendril design already to be found at the base of the Type I antefixes. It belongs on the right side, about on a level with the left ear of the head, and includes the spiral and blossom shown

<sup>\*</sup> This part of the antefix is lost.

<sup>†</sup> Measurement is given as preserved. If complete, it would probably check up with the others.

in the corresponding place on the opposite side in Figure 2. This object does not appear in Figure 1, but its design makes it absolutely certain that it is to be considered as belonging to the Corneto group.

4. Accession No. MS2203. Fragment with a design of almost, if not quite, identical nature to that on MS2130 and MS2132.

It is safe to say that if they belong in the Corneto group, this one also must be included.

Somewhat less certain are the following fragments, which on grounds of similarity are assigned to this group. Neither of them appears in Figure 1, but a study of them has convinced me that they ought to be classed here.



FIGURE 5.—FRAGMENTS OF CANOPIES FROM CORNETO: PHILADELPHIA

- 5. Accession No. MS2204. Fragment with similar tendril design, probably to be regarded as from a similar "shell," and belonging in this group.
- 6. Accession No. MS2235. Fragment of "shell" with a tendril decoration similar to that on the Type I antefixes.

These antefix fragments are illustrated in Figure 5.

As in the case of the specimens from Cervetri, there is a male counterpart to the female type, which we have just studied. This type, however, is not so easy to work with as the preceding, for three reasons. First of all, only four specimens are known to me in this country, three of which are in Philadelphia, and one in New York. This at once limits the field of investigation. Secondly, on none of them has enough of the "shell" or canopy been preserved to make possible a restoration of its design. It may, therefore, have been the same as that of Type I, or it may have been a variant; there is no means of telling from the specimens accessible to me. In the third place, the color-scheme of the type is very poorly preserved. I have selected a specimen in Philadelphia (Accession No. MS1822)¹ as the best preserved for illustration (Fig. 6), and it is plain how little remains of this type.

It will at once be noticed that the male type we have here differs radically from the grinning satyrs so popular at Cervetri, Falerii, and elsewhere. Instead, though the ears, to be sure, are

<sup>&</sup>lt;sup>1</sup> Case number, 253C.

those of a satyr, we have a calm, almost Olympian, type of head. The eyes are deep-set, and the expression is thoughtful and benignant. This would seem to betoken the late date of the series, and add a weight of its own to the evidence obtainable from an examination of the female heads. The beard and hair are represented as heavy and thick; at the sides run small tendrils, which may be thought of as pieces of vine.

As far as it can be made out, the color-scheme of these fragments is as follows: the flesh is red, the hair and beard black,



FIGURE 6.—ANTEFIX FROM CORNETO: Type II.

irises of eves white, pupils red, evebrows and lashes black, ears red. The color is best shown on one of the specimens in Philadelphia. No. MS1821,1 of which, however, only the head remains. The neck, as much of it as shows, is red, and the background against which the head appears seems to be red and black. Color was applied on a white slip, which was first laid over the coarse, porous clay. Of the example published in Figure 6, a small portion of the cover-tile remains, with the buttress of terracotta that supported the head

and "shell," which is shown in the profile view given in Figure 3. The same fault exists in the case of this buttress, that we have seen existed in the case of Type I; but here the execution and damage done is greater, as there is no example of this type, in America at least, where any of the "shell" is preserved.

Taking up the four examples separately, a detailed description will be given of each, followed by a chart of dimensions, similar to that given for Type I.

1. Philadelphia MS1821. Parts preserved: only the head. This specimen retains its colors better than any of the others, and it is from an examination of it that the color-scheme evolved above is derived.

<sup>&</sup>lt;sup>1</sup> Case number, 253A.

- 2. Philadelphia MS1822. Illustrated in front view in Figure 6, in profile in Figure 3. Parts preserved: head, base, and about two thirds of the frame that separated the head from the "shell." A fairly good section of the cover-tile is preserved, with the buttress. This is the best preserved of all the specimens.
- 3. Philadelphia MS1823. Parts preserved: about one half of the base; the head, except for the left upper part, and from one third to one half of the frame separating the head from the "shell." The break in the head is very serious, the left eye and the greater part of the forehead being gone.
- 4. New York GR1138. Parts preserved: head and neck, broken off at junction of base; and about one half of the frame separating the head from the canopy. Next to Philadelphia MS1822, this is the best preserved of the four.

CHART OF DIMENSIONS OF ANTEFIXES FROM CORNETO, TYPE II

Example	Height Over All	Width Over All	Height of Head	Width of Head
Philadelphia MS1821	17.9	12.7	*	*
Philadelphia MS1822	24.3	19.8	18.0	13.1
Philadelphia MS1823	23.0	16.3	17.2†	10.1†
New York GR1138	22.6	21.3	18.4	13.1

All dimensions are in centimetres.

The third type is female. It differs from Type I in certain details, but appears to belong in the same period. Only one example of this type exists in this country; it is in Philadelphia, No. MS1819¹ (Fig. 7). No trace of color remains on the antefix; the "shell," too, is broken off, so that there is no means of knowing what the ornament there was. This specimen appears in Figure 1.

The head is treated in much the same way as in Type I. The hair is parted in the centre, and is waved over the ears; at each side long tresses fall along the neck. On the head is a small diadem, and around the neck is a necklace, of a twisted, ropelike nature. Necklaces of this kind are often worn by the female figures on the lids of Etruscan sarcophagi and urns. Somewhat over one half of the base is preserved, but there is no trace of its decoration. Of the frame separating the head from the "shell," perhaps one half, all told, remains.

<sup>\*</sup> Same as over all measurements.

<sup>†</sup> Dimension given as preserved.

<sup>&</sup>lt;sup>1</sup> Case number, 252D.

This antefix was considerably smaller, when complete, than those in the two preceding types, as the measurements of the head would indicate. As preserved, it has an over-all height of 19.4 cm., and an over-all width of 12.3 cm.; while the measurements of the head are: height, 13.3 cm., width 10.9 cm.<sup>1</sup>

To these types already described, a fourth should be added for the sake of completeness. It is, however, in my opinion, of considerably later date. It appears in Figure 1, and is at pres-



FIGURE 7.—ANTEFIX FROM CORNETO: TYPE III.

ent in Philadelphia (Fig. 8), where it has the accession number MS1828.<sup>2</sup> It is a male antefix, with the head of a grinning satyr in the centre. It is very much the smallest of any in this group.

The "shell" is very small, and seems to have been docorated with a palmette-lotus ornament. Only the bases of the pelmettes remain, but in two instances the lotus is complete. The clay is buff. porous, and pebbly, and was originally covered with a white or cream-colored slip. most of which has disappeared. On this slip were painted the colors in which the various details were rendered. These, too, have largely disappeared, so that, on first

looking at the antefix, one is led to believe that it was never colored. The flesh, however, seems to have been red, including the eyes; the hair and beard were black, and the "shell" white on a red ground.

As regards preservation, we have noted that only the bases of the palmettes on the "shell" ornament remain. The canopy

A comparison of these measurements with the norm for Type I, as given on the chart, shows roughly a ratio of 4 to 5 for the height, and 5 to 6 for the width, of the face.

<sup>&</sup>lt;sup>2</sup> Case number, 249.

is also completely broken away at the right, and the nose of the satyr and part of his hair have been broken.

Coming to the style, Professor Frothingham, in acquiring this specimen, was inclined to place it at an earlier date than the antefixes just described. I venture, however, to differ from this belief, and, in confirmation of my point of view, would point to the fact that the "shell" pattern is late in design, while the satyr is modelled, as it seems to me, with a deliberate attempt at archa-

ism. The modelling reveals knowledge not possessed by the truly archaic workers; and, therefore, I should be inclined to date this specimen in the second century B.C., or later. The small size of the antefix may also be regarded as pointing to the same conclusion.

This example has an overall height of 19.7 cm., and an over-all width of 15.6 cm., while the head is 12.2 cm. high and 9.7 cm. wide. Where preserved, the "shell" has a width of only 7 cm. at the top, and 6 cm. at the side. It will at once be seen, from a comparison with the charts



FIGURE 8.—ANTEFIX FROM CORNETO:
Type IV.

for Types I and II, and the dimensions given for Type III, how much smaller this Type IV is than the others from Corneto.

We have now examined in detail all the objects in the group of architectural terra-cottas from Corneto. It would be interesting to be able to link this collection with any specimens of the same types existing in other museums, especially those of Italy.<sup>1</sup>

STEPHEN BLEECKER LUCE.

### NEWPORT, R. I.

<sup>1</sup> Besides the persons referred to in footnotes from time to time in the course of this article, I am under debt to the authorities of the University Museum for the permission to publish these antefixes. I am also under a very special debt to Mrs. A. W. Van Buren (E. Douglas Van Buren) for much help and friendly counsel. She has not seen this article, nor can she be held responsible for any of the errors with which it may abound; but in the preparation of this paper

and of the one on the antefixes from Cervetri (A.J.A. XXIV, 1920, pp. 352 ff.) I have attempted to follow in the paths indicated by her in many courteous and friendly letters, received during the winter.

No attempt has been made to bring this group under the Law of Dynamic Symmetry. The fragmentary condition of the objects precludes the possibility of making sufficiently accurate measurements to work out a theme in any root rectangles for them.

I wish also to make a correction to a statement made by me in my last article, where I said, erroneously as I now believe, that the antefixes from Cività Lavinia represent our earliest type of "shell" antefixes. I believe now that the antefix in Perugia, published by Fenger (Le Temple Étrusco-Latin, p. 12, figs. 37, 38) is earlier, as it recalls in many respects the "stephané" type of antefix found at Cervetri (A.J.A. XXIV, 1920, pp. 33, 34, figs. 7, 8). Compared to this specimen in Perugia, the examples from Cività Lavinia have a very sophisticated look, which would make them, in my opinion, about a generation later. Points of comparison between the Perugia type and the "stephané" type will be found in the earrings, the dressing of the hair, and the diadem. It is just a "stephané" antefix with a canopy added.

### THE CARDONA TOMB AT BELLPUIG

THE only way to know about anything is to go and look: this platitude, like other moral injunctions, is oftener repeated than applied. Yet nothing else will serve. The opinion of one's master, the description of one's companion, the best of photo-

graphs, will not yield the secrets that personal study on the spot can solve. tomb of D. Ramon de Cardona, at Bellpuig in Catalonia (Fig. 1), is one of those monuments of art to which all manuals refer and which relatively few persons have seen. In consequence:-first. one book copies from another the unqualified attribution to Giovanni da Nola: second, it passes for imported Italian work: and thirdly, it is cited to prove that Spain was so dependent on Italy that her sculpture was not only copied but imported bodily. None of this is tenable in front of the tomb. On the contrary, after consideration it appears that



FIGURE 1.—TOMB OF D. RAYMOND OF CARDONA: BELLPUIG.

Spanish ideas were in control, and on investigation, thereafter, that Spanish influence in Naples may easily be accounted for.

Always on inspection unsuspected differences and likenesses become apparent. So, in Bellpuig, where by hearsay there was "only an overloaded Italian tomb," the strong sunlight directly after noon revealed, to one fresh from Naples and the abundant and known work of Giovanni da Nola, two distinct styles. advantage of taking one's own photographs is that one has to stay and look at the object for several hours without intermission, and in that time, impressions are slowly formed. The mind is as sensitive as the photographic plate, but for neither is the best result instantaneous. The belief there formed and recorded in the notebook was that the Virgin a-top, the sarcophagus, the relief of a sea-fight, and perhaps the two friezes are by Giovanni da Nola. For the sirens and the half-length girls, with the pilasters, he is not responsible. From his designs, but not from his hand, are the putti and the Rachael and Leah figures, with the seated figures above, together with the scheme of the whole. The hypothesis would be that he prepared the drawings, under Spanish influence, in Naples, did the most important parts, and left the remainder probably to Genoese masters. On the base is carved: Joannes Nolanus faciebat.1

Raymond of Cardona was victor at Mazalquivir in 1505, and the battle there is probably the sea-fight depicted on his tomb. In 1510 Ferrand I made him Viceroy of Naples; in 1513 he delivered Milan from the French and Genoa from the Venetians; in 1522 he died at Naples. The Franciscan convent of Bellpuig he had founded fifteen years before, the bull of Julius II being dated early in 1507. His widow, Doña Isabel Cardona y Requesens, ordered his tomb for that church from Giovanni da Nola and buried him meanwhile in Castelnuovo. Nine years later the body, still incorrupt, was received at Bellpuig "in a chest closed by two keys" and deposited in the great tomb.

On March 15, 1531, says a notarial act still in existence, "positum fuit in monumentum in eadem Ecclesia situm, et sua effigie a famossisimo artifice Joanne de Nola, perfectissima arte construc-

<sup>&</sup>lt;sup>1</sup> There is a short study of Giovanni da Nola in Frizzoni, Arte Italiana nel Rinascimento, pp. 83–88. Various references are scattered through the volumes of Napoli Nobilissima; the passage cited later from Benedetto Croce's researches into the records of Spanish artists and craftsmen in Naples, will be found there, Vol. IV, p. 12.

tum." All travellers admired it: "the most sumptuous monument of the arts that there is in Catalonia," said Ponz, and again, "coming back to Juan Nolano, he well deserves to be accounted as one of the great men who flourished when the noble arts were emerging from the shadows." Céan Bermúdez sets down under the year 1524, in his index of sculptors, "Juan Nolano in Cataluña."

When the convent was exclaustrated the tomb was neglected. and opened casually to show to any chance traveller the tall body of the great Captain-General of the Church. Piferrer4 reported indignantly that a crowbar for this use lay across the sarcophagus: the golden sword of Julius II had disappeared at the time that the French went through. In 1809 they had come to Bellouig. and with comings and goings staved there about four months: they wrecked the church, violated the tomb, broke the statues, stole the gold hilt of the sword, and probably destroyed the banners which had been taken in great battles. When the French had gone the Spaniards, who were keeping Lérida, turned the convent into a military hospital and did more damage. From 1816 to 1829 the friars were restoring it, but in 1835 they were turned out and the townsfolk at leisure looted the place. last the monument was transferred to the parish church; the work took from December 13, 1841, till May 11, 1842, and another notarial act certifies to the regularity of the translation, and preserves the names of the ducal representative, the clerical committee, and the municipal authorities, the masons and their assistants, and the supervising architect. The urns on the top were probably his invention, and parts of the dress of the hermes.

How badly the tomb had leen damaged in 1809 and 1835 we have no way to know, but the work took fifty-nine cartloads of marble and much more of ordinary stone and building material. "A great altar fabricated of the said marbles and statues," the document calls it, and in description is more concerned with preserving the inscriptions than itemizing the sculptures.

<sup>&</sup>lt;sup>1</sup> Valeri Serra y Boldú, Lo Convent de Bellpuig, p. 15. The facts are drawn from this study and Piferrer's Cataluña (written in conjunction with Pi Margall and revised a generation later by Λ. A. Pijoan), II, pp. 259–312.

<sup>&</sup>lt;sup>2</sup> Ponz. Viaje de España, XIV, letter v.

<sup>&</sup>lt;sup>3</sup> Diccionario de los mas illustres professores de las bellas artes, VI, p. 109. There is no biography of Juan Nolano and I have been unable to discover the reference in the foregoing five volumes or to explain where he got the date.

<sup>&</sup>lt;sup>4</sup> Piferrer, op. cit. notes on pp. 309 and 312 f.

Of these inscriptions there are three: below, on the left, one says:—Servavi thalamum genie dulcissime conjux, servandus nunce est pro thalamo tumulus. Another, corresponding, on the right, reads: Ornasti et manes lacrimis miserabilis uxor haud optare alias fas erat inferius. The most important crowns the whole, where a pediment might be: Raimundo Cardonae qui Regnum Neapolitanum prerrogativa pene regia tenens gloriam sibi ex mansuetudine comparavit, Ysabella uxor infelix marito opt. fecit. Vix.



FIGURE 2.—CENTRAL PORTION OF TOMB OF D. RAYMOND OF CARDONA.

ann. XXXXXIII mens. VIII diebus VI. ann. M. D. XXII.

The tomb will recall to the traveller at first glance the two monuments by Sansovino in S. Maria del Popolo (1505-7), but the difference is great. It looks more like a triumphal arch or portal and the niche is deeper (Fig. 2). For the ecclesiastical figure dozing uncomfortably is substituted a young knight sleeping on his armor. This is a favorite motive in Spanish tomb sculpture, as

may be seen, for instance, among the almost nameless tombs in the south transept at Avila (Fig. 3). It is slightly modified in that of the Count of Tendilla (now in S. Ginés of Guadalajara), who died in 1479; or that, better known, at Sigüenza, of Martin Vázquez de Arce, whom the Moors killed in 1486. The intention of it is, always, the Spanish ideal of knighthood. The depth of the recess is also a Spanish trait, for while Italian tombs have the

<sup>&</sup>lt;sup>1</sup> The Avila tombs I have photographed, but I think they are unpublished; those of Guadalajara and Sigüenza may be found in the admirable work of Ricardo de Orueta, *La Escultura Funeraria en España*, in the volume for Ciudad Real, Cuenca and Guadalajara, pp. 110–160.

air of being developed from a wall slab, the Spanish derive from the arcosolium. The Gothic tombs of Leon, or Burgos, or of the Old Cathedral of Salamanca, show this, and show the tympanum under the arch occupied by a religious scene. Here the lunette is filled with a Pietà, equally suitable for its place in theme and in composition.

The statues that flank the recess are a trifle too large for their niches and the pattern on their bases recurs nowhere else. The one on the left, with oak bough and helmet, presents probably some allegory of strength in government and war; the one on the right, who has lost her hands and with them her attributes, shows more recueillement and stands probably for some aspect of faith. From roundels above emerge half-lengths of buxom nymphs, with



FIGURE 3.—TOMB OF A YOUNG KNIGHT: AVILA CATHEDRAL.

the laurel wreath and the olive bough. A pair of seated prophets or evangelists on top of the cornice are reduced to holding shields: that on the left is like a young warrior; the right-hand figure is brooding and very lovely. Over all a Madonna, up-borne in her mandorla of cherub-heads by gay young girl-angels, is perfectly Florentine.

The artist had thought it enough for the great admiral to set on his sarcophagus a frieze of marine deities, exquisite in design: the squatting, web-footed sirens which sustain it, though their funereal significance here is a curious survival of the Greek motive, are plastically an unhappy afterthought. In the spandrels above appear, on one side, the crane that occupies the same place at Ripoll, and on the other the pot of lilies that is the Virgin's *impresa* all over Spain. Now the cornice of cranes and lily pots is cer-

tainly from Giovanni da Nola's hand, and I am at a loss how to interpret it; the rest is plain enough, one side being given to the active and one to the contemplative life, and Our Lady set in the midst in her joy and her sorrow.

Giovanni da Nola lived in Naples all his days, working for Spaniards and with Spaniards. So much we know, but not much more.¹ At one moment in the church of Monte Oliveto, between Rossellino's lovely tomb and Benedetto's lovely altar, his art rises high as that of Girolamo da Santacroce, and, as tourists and compilers betray, you could not tell the one from the other. At S. Giovanni a Carbonara he was employed long, and Vasari, who also worked there and should know, says explicitly: "the altar-piece of that chapel [of the Marchese di Vico], in which are half-reliefs of the Magi making offerings to Christ, is by the hand of a Spaniard." Thence he proceeds to a story of a competition between this Spaniard and Girolamo da Santacroce.

In S. Giovanni a Carbonari work was going on from 1516 to 1557. The relief of Christ carried to his grave is by "Giovanni di Prato Spagnuolo," says Benedetto Croce. This sculptor is, however, usually referred to as the Spaniard Pietro delle Plate or da Prato,—for instance, by Eugène Müntz. His name was probably Pere Prat, which is good Catalan. He is presumably the man who built the parish church of S. Elmo in the Castle for D. Pedro de Toledo, the Viceroy's cousin, in 1547, where a stone still says: Aedem hanc, opera et artificio Petri Prati Hispani Facundum cur idemque approbavit anno a Christi nato M D X L VIII. He made also, perhaps, says Croce, the statues of the sepulchre of Andrea Bonifacio and G. B. Cicara (which Frizzoni attributes to Giovanni da Nola) in the church of S. Severino. The point is that there was a Spaniard, that Giovanni, exceedingly sensitive and variable, was subjected to Spanish influence directly.

"He made a tomb for D. Pedro de Toledo, Marquis of Villafranca, and his wife, who were then resident in Naples, in which he made an infinity of stories of the victories that lord gained over the Turks, with many statues which are in that work, all set separate and carved out with much diligence. It was to have been carried into Spain, but that not having been done in his

<sup>&</sup>lt;sup>1</sup> Vasari, Le Vite, ed. Sansoni, 1880, V, pp. 93–96. Milanesi (and certainly Perkins after him, Handbook of Italian Sculpture, pp. 366–369) relied on De Dominici, who was finally shown up by Benedetto Croce in 1893 in Napoli Nobilissima, I, p. 143.

lifetime, it stayed in Naples:" so Vasari. Coming upon it, behind the altar in S. James of the Spaniards, one feels instantly how Spanish it is. M. Müntz¹ feels that it proceeds from the tomb of François I at S. Denis, which is impossible; but there is some connection to trace between this and the tomb that Giovanni Giusti and his brothers made and set up in Tours for Louis XII and Anne of Brittany. That, however, is not the present purpose, which is strictly the Cardona tomb.

Of the elements of this composition there is no need to speak at great length. As already said, in general form it is less flat than the Florentine and Venetian tombs and more architectonic than the earlier Neapolitan. The formula on the whole is very near to the contemporary altars thereabouts, as Mino da Fiesole's tombs in the Badia and altar at Fiesole are reducible to one formula, or, similarly, Sansovino's S. Spirito altar and his Roman tombs. The relief on the base is found on Girolamo da Santacroce's beautiful altar at Monte Oliveto as well as Giovanni da Nola's pendant to that. It had already been employed on Donatello's tomb at S. Nilo, and was to be used on the tombs made for D. Pedro de Toledo, for Louis XII, and for Francois I. The critics who disallow Giovanni's historical low-reliefs on the tombs of great captains forget that these are legitimately inherited from the narrative reliefs of Donatello. The hermes and putti are found on Giovanni's altars at SS. Severino e Sosio; and putti even more like, and a Pietà less dramatic but more plastic, on another altar there, with a relief of the dead Christ below.

In the work on these altars and that done completely under Florentine influence at the church of Monte Oliveto, in 1536, Giovanni da Nola remains completely within the limits of space that the great Quattrocentists accepted—as though the statue were carved from an oblong rectangle of marble not very deep: this, indeed, is one of the secrets of their beauty, as with the early Greek "athlete" statues. The same thing is true of the flanking figures here. In the tomb of Julius II, the Rachael and Leah of Michelangelo are about the same in proportion as those of the

<sup>&</sup>lt;sup>1</sup> La Renaissance en Italie, III, pp. 439-440. D. Ramon died in 1522, the tomb was set up in 1531; the tomb of Louis XII was on hand 1516-1532; D. Pedro built S. Giacomo degli Spagnuoli in 1540 and his tomb was finished before he died in 1556; François I died in 1547 and the tomb was completed in 1559; Gouse, La sculpture française, pp. 93-98.

Cardona tomb, but their sobriety, precisely, has led critics to question their date. The trait is archaic. On the other hand, in the half-figures of girls above, the Nolan has abandoned that canon. The unlikely things, and the unsatisfactory, like the substi-



FIGURE 4.—TOMB OF D. PEDRO HENRÍQUEZ DE RIBERA: UNIVERSITY CHURCH: SEVILLE.

tution of a sea-shell for an Ionic volute, and the trophies on the pilasters, do not look like Naples. They look, to say truth, like Genoa. Lombard and Ligurian taste relished things of that sort. One thing we know. that innumerable Spanish tombs were made up at Genoa;1 from the marble quarries of Carrara it was easy to ship thither. and to Barcelona and Seville it was easy to ship thence. Bartolomé Ordoñez and many another staved too long in Genoa on just such business.

As you sit and look, this tomb still seems less Italian than the account of it will read, with its dramatic relief set into the niche behind, as Spanish Gothic sculp-

<sup>1</sup> It is worth recalling Vasari: "This same marble then [of Pietrasanta] the moderns of today use for their statues, not only in Italy, but in France, England, Spain, and Portugal, as can be seen today in the tomb executed in Naples by Giovanni da Nola the excellent sculptor, for D. Pedro de Toledo, viceroy of that kingdom to whom all the marbles were presented and sent to Naples by Duke Cosimo de'Medici." Vasari on Technique, L. S. Maclehose and Baldwin Brown, p. 47. Le Vite, Sansoni edition, I, p. 120.

tors carved the funeral procession behind the defunct, for instance at Saragossa and Tudela, or enthroned the Saviour or His Mother in the lunette, as already said. Other like things may be found in Spain. There is still, in Seville, a pair of Ribera tombs (Figs. 4 and 5) made for the Charterhouse by the brim-

ming river, and signed by good North Italians in 1520. Ponz.<sup>1</sup> who saw them there in the eighteenth century, copied out the inscriptions: Antonius Maria de Charona hoc onus faciebat in Janua: and the other, Opus Paceaazini faciebat in Janua. The former. Antonio Maria Carona, was almost certainly living and working in Seville ten vears later; it is probable that he went back and forth between Italy and Spain as business demanded. Gestoso v Perez² publishes an item to the effect that "Antonio Maria Ginovés" was paid for the step of the altar mayor and for the trascoro in 1534, adding: "Is he



FIGURE 5.—Tomb of Doña Catalina de Ribera: University Church: Seville.

the Genoese sculptor Antonio Maria de Aprile de Carona? We incline to think so." The Gazzini similarly went to Sicily and worked for Spaniards there.

<sup>&</sup>lt;sup>1</sup> Ponz, Viage de España, VIII, pp. 236-237.

<sup>&</sup>lt;sup>2</sup> Gestoso y Perez, Ensayo de un Diccionario, I, p. 221. Cf. Ricci, Art in Northern Italy, p. 236, on the Aprile and Gazzini families; also Di Marzo, I Gagini e la Scultura in Sicilia, passim.

The likeness of Aprile's tomb to that at Cardona will appear from the photographs, without need of discussion: by architectonic quality, by the decoration, the side statues, the lunette, the relief within the recess, above all, by the style in precisely such matters as acquaintance with Giovanni da Nola did not explain. So the Ribera tombs explain the Cardona, and confirm by their signatures what was conjectural there.

It has been proved, then, that of the tomb at Bellpuig the theme, the effigy, and the architectural use of a deep niche and reliefs are entirely Spanish, and while the symbolical figures, the Virgin, and the friezes are Neapolitan their significance is still Spanish; the rest was made up at Genoa, where many Spaniards were engaged, and whence the native workmen went often to Spain and came home and went back again.

Spanish ideas, then, were in control in this work, Spanish tradition was in communication, at Naples and Genoa alike, in the first half of the cinquecento; and all these are Spanish tombs, though executed in Italy.

GEORGIANA GODDARD KING.

BRYN MAWR COLLEGE.

## ARCHAEOLOGICAL NEWS<sup>1</sup>

# NOTES ON RECENT EXCAVATIONS AND DISCOVERIES; OTHER NEWS

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## GENERAL AND MISCELLANEOUS

ARCHAEOLOGICAL DISCOVERIES IN 1919.—In *Cl. Journ.* XVI, 1921, pp. 271–279, G. H. Chase reviews the results of archaeological investigation in 1919.

EPIGRAPHIC BULLETIN.—In R. Arch., fifth series, XII, 1920, pp. 351–390, R. CAGNAT and M. BESNIER publish the text of 69 inscriptions relating to Roman antiquity. Of these 17 are in Greek, the rest in Latin. References to other recently published inscriptions are added.

MEASUREMENT OF SKULLS.—In Sitz. Anth. Ges. 1913–1914, pp. 9–26, J. Szombathy reports on an international standardization of the measurement of skulls and heads, recommended by a commission appointed by the Thirteenth International Congress for Prehistoric Anthropology and Archaeology at Monaco in 1906.

HAINAN.—The Aboriginal Population.—In Sitz. Anth. Ges. 1913–1914, pp. 6–8, F. Heger reports an investigation of the aboriginal population of the island of Hainan: their weapons, tools, clothing, ornaments, and wood-carving.

NECROLOGY.—Max van Berchem.—Max van Berchem, who was born in 1863, and died in 1920, was for many years engaged in the collection and study of Arabic inscriptions from Egypt and Syria, which were to be published as the initiatory volume of a *Corpus Inscriptionum Arabicarum* under the patronage of the Académie des Inscriptions et Belles-Lettres. He was also the author of a *Voyage en Syrie*. (*Syria*, II, 1921, p. 80.)

F. W. Hasluck.—F. W. Hasluck, who died February 22, 1920, in Switzerland, was appointed to the Cambridge Studentship in the British School at Athens in 1901. From 1906 to 1915 he served the School in the offices of Assistant

<sup>1</sup> The departments of Archaeological News and Discussions and of Bibliography of Archaeological Books are conducted by Professor Deane, Editor-in-charge, assisted by Professor Samuel E. Bassett, Professor C. N. Brown, Miss Mary H. Buckingham, Dr. T. A. Buenger, Professor Harold N. Fowler, Professor Harold R. Hastings, Professor Elmer T. Merrill, Professor Lewis B. Paton, Professor A. S. Pease, Professor S. B. Platner, Professor John C. Rolfe, Dr. John Shapley, Professor A. L. Wheeler and the Editors, especially Professor Bates.

No attempt is made to include in this number of the JOURNAL material published after June 30, 1921.

For an explanation of the abbreviations, see pp. 108-109.

Director and Librarian. His final illness was probably hastened by his work for the British Legation at Athens during the war. His most important publications were a book on the history of Cyzicus and a series of articles on Italian influences in the Levant. Towards the close of his period of research his attention was absorbed by problems of the mutual influences of Christianity and Islam, and he gained a remarkably intimate knowledge of the sects of Asia Minor. (J. P., B.S.A. XXIII, 1918–1919, p. xvi.)

Morris Jastrow, Jr.—Morris Jastrow, Jr., eminent authority on Babylonian religion, died suddenly at Jenkintown, near Philadelphia, June 22, 1921. He was born in Warsaw, Poland, August 13, 1861, graduated at the University of Pennsylvania in 1881 and received the degree of Ph.D. from the University of Leipzig in 1884. He was professor of Semitic languages at the University of Pennsylvania, a position which he had held for many years. His more important works are: The Religion of the Babylonians and Assyrians, 1898; The Study of Religion, 1902; Die Religion Babyloniens und Assyrians (3 vols.), 1902–1912; Aspects of Religious Belief and Practice in Babylonia and Assyria, 1911; Hebrew and Babylonian Traditions, 1914; The Civilization of Babylonia and Assyria, 1915; and The War and the Bagdad Railway, 1917. He published a large number of articles in the fields of Semitic archaeology and philology, the most recent being a discussion of the newly discovered Assyrian code of laws. (W. N. B.)

Robert Munro.—The archaeologist Robert Munro died July 18, 1920, at Elmbank, Scotland, in his 85th year. He was the author of a well-known work on the archaeology of Bosnia and Dalmatia, of numerous books and articles on prehistoric archaeology, and the most complete existing monograph on the lacustrian stations of Europe (1890). He taught at Glasgow and Edinburgh. He was secretary of the Scotch Society of Antiquaries and a member of the Royal Academy of Ireland. (S. R., R. Arch. XII, 1920, p. 332.)

Leon de Vesly.—Born at Rouen, June 22, 1844, Leon de Vesly died in his native city in November, 1920. After serving in the war of 1870–1871 and travelling for a time, he settled at Rouen in 1878 and began his career as teacher of drawing. He conducted and encouraged excavations and was the author of many articles and monographs, chiefly on prehistoric antiquities. He was conservator of the departmental Museum of Antiquities, and held other similiar positions at Rouen. (Georges Duhose, R. Arch. XIII, 1921, pp. 139–141, from the Journal de Rouen, Nov. 26, 1920.)

PLEVEN.—Diana Germetitha.—In Jh. Oest. Arch. I. XVI, 1913, Beiblatt, cols. 205–208 (fig.), G. Kazarow publishes the following inscription on an altar found at Pleven, Bulgaria, in 1910: Deanae (sic) Germetithae sacrum M. Julius Niger voto posuit. The name Germetitha is new and is, perhaps, Thracian. It may have been the name of a local goddess later identified with Diana.

SHANGHAI.—The Honan Relics.—At Shanghai in the Chien Shou T'ang building there is a collection of inscribed bone fragments bearing archaic Chinese inscriptions of the period of the Shang dynasty. These have hitherto eluded decipherment, but the key has recently been discovered by Mr. Wang Kuo-wei of Hai-hing Chou. This consists in the identification of eight personal names in these tablets with names in a list of ancestors of T'ang the Victorious, the founder of the Shang dynasty, preserved by Ssu-ma Ch'en. This discovery is reported by L. C. HOPKINS, J.R.A.S. 1921, pp. 29-45 (pl.).

THRACIAN ARCHAEOLOGY.—In R. Arch., fifth series, X. 1919, pp. 133-172 (fig.), Georges Leure continues his series of articles on Thracian archaeology with the publication of nine epitaphs, five of which commemorate Roman soldiers. Three of these died at Oescus. Of those, two (C. Roscius, C. f., Anieusi, Kapito, Troade, and P. Scribonius, P. f., Colling tribu, Epheso. Varus), veterans of the legio V Macedonica, died in the first century A.D., the third (name lost, but son of Maximinus Pannonius) in the third century. The tombstone of a Gallic cavalryman who died at Augustae in the first century A.D., bears a relief of a cavalry soldier, which is clearly affected by reliefs of the "Thracian Horseman." The article contains remarks concerning the history of the legio V Macedonica, concerning the alae (especially the ala Capitonis), and some points of topography. Ibid. XIII, 1921, pp. 108-126 (4 figs.), Georges Leure continues his publication of unpublished or little known monuments in Thrace. A silver statuette in the museum at Sofia (cf. Arch. Anz. 1911, pp. 363 f., figs. 7, 8), representing a child holding a dog, is explained as a spicebox. It is compared with a statuette in the Collection Clera (Catalogue, Bronzes, III, p. 106, No. 164; cf. a third statuette, Cat. of Bronzes in the British Museum, No. 5685), which is of Syrian origin. The statuette in Sofia wis found in 1909 at Nicolaevo, district of Pleven, together with many other objects, chiefly of gold and silver. The treasure seems to have been hidden at the time of the Gothic invasion. The date is 248 A.D. All these objects are probably of Syrian manufacture, rather than local manufacture under Syrian influence.

## **EGYPT**

ALEXANDRIA.—The Alexandrian Mint, 308-312 A.D.—At an unnamed time and place a find is said to have been made of two bushels (!) of folles, ranging from Domitius Domitianus to Maximinus Daza. Of these coins a selection is described by Percy H. Webb in Num. Chron. 1920, pp. 208-215. It comprises from the Alexandrian mint 43 coins of Galerius, 190 of Maximin, and 5 of Galeria, together with about 25 coins of the same rulers from the mints of Antioch, Nicomedia, and Cyzicus. The Alexandrian coins were mostly in fine condition, and their weights are, therefore, of importance and are carefully recorded. Not a single case of identity of dies was observed. In coins of the mint at Nicomedia the letters CMH, usually taken as a sign of value, were found on pieces of decidedly different weights and modules. This tends to upset belief that these coins represented intrinsic values.

EL-KUR'UH.—Tombs of the Ethiopian Kings.—In B. Mus. F. A. XIX, 1921, pp. 21–38 (41 figs.) G. A. Reisner publishes a preliminary report on the excavations of the Harvard University-Museum of Fine Arts Expedition at El-Kur'uh in the Sudan in 1918–1919. The tombs of all the kings of Ethiopia from the establishment of their monarchy to its end (750–250 B.C.) were discovered. In construction they illustrate successive stages of evolution from the tumulus grave of the first king to the three-room stairway pyramid of his remote successors. The chalcedony arrow-heads discovered in the tumulus of the earliest chieftain of this Ethiopian dynasty are of Libyan form, and suggest that the royal family of Ethiopia was of Libyan origin. It probably grew to power through its strategic position on the trade routes between Egypt and

Central Africa. Although the tombs were looted in ancient times, many objects of great beauty and interest were found by the excavators. They indicate that the supposed revival of Egyptian art in the Saite period was not so sudden and unprepared as has been believed; that in fact the tradition of good technique had never wholly perished in Egypt. The possibility of Greek influence in the production of Saite art also seems more remote than before. The objects illustrated in Dr. Reisner's report include arrow-heads, tomb-paintings, necklaces of gold and precious stones, blue faience amulets, stone jars, Canopic heads, and ivory inlays.

FARAS.—Excavations of the Oxford Expedition.—In Ann. Arch. Anth. VIII, 1921, pp. 1-18 (5 pls.) F. Ll. Griffiths reports on the excavations of the Oxford Expedition in Nubia, 1910-1913, on the borders of Egypt and the Sudan. At Faras, about twenty-five miles north of the Second Cataract, were discovered village remains and a cemetery of the Protodynastic age. The traces of the village were slight. It may never have had walls of brick or clay. Potsherds with comb impressions, flint flakes and some other objects indicated the site of the settlement. About two hundred meters farther in the desert 116 graves were excavated. These were narrow and shallow pits, oval and approximately rectangular, with no trace of roofing slabs. Most of them had been plundered in ancient times. The skeletons were contracted and lav on the left side with the head to the south. The pottery in the cemetery was all hand-made. The Egyptian wares included large jars of pink clay, mostly undecorated, a few "wavy-handled" jars, and flat-based bowls. The native wares are softer. Some examples were brown throughout, but the most common had a black core and a brownish or reddish surface. Bowls were sometimes colored with haematite mixed with the clay. Some were painted with haematitie, burnt red outside and black inside. There were some examples of the "variegated" haematitic ware which is found in Nubia. Few stone vases were found. Some copper chisels and awls, a copper axe-head, and beads and other ornaments were discovered. It appears that such civilized settlements as this in Lower Nubia were of short duration.

GHÔRAN.—A Demotic Papyrus.—In C. R. Acad. Insc. 1920, pp. 223–231, H. Sottas interprets Demotic Papyrus III of Lille, discovered on the site of Ghôran, southeast of the Fayûm. It is a contract guaranteeing to the wardens of a prison the presence of certain persons at an appointed time. Probably prisoners were released for private service to proprietors who made such engagements. The principal interest of the papyrus lies in the fact that it annexes the five "epagomenic" days to the last month of the year.

TELL-EL-AMARNA.—Transference of the Direction of Excavations.—In the Journal of the Manchester Egyptian and Oriental Society, IX, 1921, p. 19, it is announced that the concession of the site of Tell-el-Amarna has passed from the Deutsche Orientgesellschaft to the Egypt Explorations Society, and that investigations on this site will be conducted by Professor T. E. Peet of the University of Liverpool, assisted by F. G. Newton, architect.

THEBES.—Graffiti from the Valley of the Kings.—In C. R. Acad. Insc. 1920, pp. 107–116, J. Baillet describes the graffiti in the tombs of the Valley of the Kings near Thebes. He has collected more than 2000 of these. The greater number are inscribed on empty spaces of the walls, or in corners of the pictures; some actually deface the decorations of the tombs. Graffiti have been

found in ten of the forty-five known tombs, probably those which were most accessible and oftenest shown to travellers. The positions of some of these signatures have shown that the *talus* of debris which half closed the tombs is not of modern or mediaeval origin, but existed before the Ptolemaic period. The names represent a great variety of nationalities—Egyptian, Carthaginian, Greek, Roman, Thracian, etc., and show that visitors to the tombs came from all parts of the Mediterranean world, even from Massilia and Spain. Many professions and occupations are mentioned. It is impossible to identify with certainty the signature of any celebrated man. Many visitors recorded not only their names, but expressions of admiration of the tombs, or of some sentiment or belief.

# BABYLONIA AND ASSYRIA

ASSHUR.—An Assyrian Law Code.—The German excavations at Asshur, the ancient capital of Assyria, during the years 1903–1914, disclosed an Assyrian law code dating from about 1000 B.C. This has been published by D. Schroeder in Keilschrifttexte aus Assur verschiedenen Inhalts, Leipzig, 1920. In J.A.O.S. XLI, 1921, pp. 1–59, M. Jastrow, Jr., discusses and translates the fifty-five sections of the chief tablet and the eighteen sections of the second tablet. The code is nearly a thousand years later than the Code of Hammurabi, but it is similar to it in the general features of its jurisprudence. Its punishments, however, are much more barbarous than those of the older code. Among these we find with nauseating frequency the cutting off of the ear or the nose or both, or boring the ear or mutilating it, or mutilating the entire face, lashes varying in number from twenty to one hundred blows, castration in two instances, public exposure by taking an offender's clothes away, and in one case impalement.

Religious Texts.—In Z. Morgenl. Ges. LXXIV, 1920, pp. 175–191, E. EBELING gives a number of transcriptions and translations of interesting religious texts recently discovered by the German expedition at Asshur. These include an incantation for appearing the anger of a stranger, an incantation against hostility, an incantation against disease, a ritual of exorcism against disease, and an exorcism of a ghost.

LAGASH.—Ancestor-Worship in the Time of Lugalanda and Urukagina.—In Orientalia, II, 1921, pp. 32–51, B. Deimel publishes twenty-five tablets from the archives of the temple of Bau in Lagash which contain lists of offerings made by Barnamtarra and Shagshag, the consorts of Lugalanda and Urukagina, to the ancestors of their dynasties. Sixteen of the tablets are lists of sacrifices presented to the manes, seven treat of sacred vessels and garments with which the statues of the ancestors were clothed on feast days, two are labels for tablet holders, from which it appears that tablets of this sort were known as en-ni-ne, "ancestors." The contents of these tablets are of great importance for the history of ancestor-worship in Babylonia.

## SYRIA AND PALESTINE

PROJECTED EXCAVATIONS.—The High Commissioner of the French Republic in Syria, in accordance with the advice of the Académie des Inscriptions et Belles-Lettres, has commissioned M. Maurice Pézard to conduct excavations at Tell Nebi Mindau, the site of the Hittite Qadesh; M. Camille Enlart to study the mediaeval monuments of Tartus, M. G. Contenau to continue excavations at Sidon, and M. de Lorey to direct excavations at Tyre. (Syria, II, 1921, p. 80.)

ABU-GHOSH.—Discovery of an Ancient Tomb.—In R. Bibl. XXX, 1921, pp. 97–102 (2 pls.; 3 figs.), F. M. ABEL describes an old Palestinian tomb discovered at Abu-Ghosh, near the ancient Kirjath-Jearim. It is excavated in the face of a rocky ledge, and consists of a central depression surrounded by a broad bench on which the bodies were laid. The entrance was so skilfully concealed that the tomb had not been opened since the Graeco-Jewish period. A figurine and a large amount of pottery of this period were found in it intact. The tomb itself belongs to a much earlier period, having been violated and robbed of its earlier contents, except for a few fragments, at the time of its use in the Greek period.

ASKALON.—Excavations of the Palestine Exploration Fund.—Excavation on the site of the ancient Philistine city of Askalon was begun by the Palestine Exploration Fund, under the direction of Dr. Garstang, in August, 1920. Near the surface remains of a Crusaders' church were discovered, and a Byzantine church, presumably of the eighth century, with fragments of Greek and Cufic inscriptions. There was also unearthed the foundation of a temple, or other public building, in the best Roman style, constructed entirely of Greek and Italian marble. Here two fine statues of Fortune and of Victory were discovered. A pool was also uncovered which seems to be identical with the "Well of Peace" mentioned by Antoninus Martyr in the sixth century, and the discovery here of a potsherd representing a man fishing raises the question whether this is not the site of the more ancient fish-pond and sanctuary of Derceto, or Atargatis. A series of exploratory trenches has also been dug, which have yielded specimens of the local ceramics of every period from post-Neolithic up to Roman. These discoveries are described in Pal. Ex. Fund. LIII, 1921, pp. 12-16, 73-75 (5 pls.).

BEIRUT.—A New Museum.—A museum has been organized at Beirut by the French Service des Antiquités et Beaux-Arts de Syrie, under the direction of C. Virolleaud. (Syria, II, 1921, p. 80.)

JERUSALEM.—The French School.—By a recent decision of the Académie des Belles Lettres et Inscriptions, the École biblique de Saint-Étienne at Jerusalem will be known henceforth as the École Française Archéologique de Jerusalem. Excavations at 'Ain Duk are contemplated. (Syria, II, 1921, p. 79.)

Organization of Archaeological Research.—In Ann. Arch. Anth. VIII, 1921, pp. 61–62, J. Garstang gives a brief account of the measures which the British Administration of Palestine has taken to protect antiquities and to encourage archaeological study. A Palestine Museum which is being organized at Jerusalem will exercise the right of selecting objects needed for its collections from the finds made in excavations. The three established schools of archaeology in Jerusalem (British, French, and American) have arranged for collaboration in

instruction and in the use of libraries; and a common building will house the Government Department of Antiquities, the British School, the Library of the American School, and the Museum.

TIBERIAS.—Excavations.—In Syria, II, 1921, p. 80, it is reported that in excavations at Tiberias under the direction of Naoum Slousch the site of the Kenashta dehamata, or synagogue of Rabbi Mait, has been discovered. A number of Jewish tombs have also been found, including that of Isidorus, a member of the Sanhedrim. The inscription on this tomb was in Greek.

# ASIA MINOR

EPHESUS.—Honorary Decrees.—In Jh. Oest. Arch. I. XVI, 1913, pp. 231-244, J. Keil discusses a series of honorary decrees from Ephesus, which date from the fourth and third centuries B.C. Most of them were discovered in 1912.

Excavations of the Austrian Archaeological Institute in 1913.—In Jh. Oest. Arch. I. XVI, 1913, Beiblatt, cols. 89–92 (10 figs.) E. Reisch reports upon the excavations of the Austrian Archaeological Institute at Ephesus in 1912 and 1913. These included the uncovering of an important place for distributing water south of the odeum and further examination of the stadium, the north side of the Roman as well as the Greek market-place, the wall of Lysimachus, the so-called temple of Claudius, the name of which is still uncertain, and the remains of the large building lying under the double church excavated in 1904 and 1907. This proved to be the basilica where the occumenical council met in the year 431.

A New Inscription of C. Rutilius Gallicus.—In Jh. Oest. Arch. I. XVII, 1914, pp. 194–199 (fig.) J. Keil calls attention to a statue base found at Ephesus in 1913 bearing the name of C. Rutilius Gallicus celebrated by Statius. He also gives a brief account of his career.

A Sarcophagus with Scenes from the Lower World.—In Jh. Oest. Arch. I. XVII, 1914, pp. 133-144 (pl.: 7 figs.) J. Keil publishes two sarcophagi found by him in a tomb at Ephesus in 1907. The long sides of one, which is badly broken, were decorated with three garlands of fruit separated by two small figures on pedestals. At the corners were winged Victories. The second sarcophagus has on the front and ends scenes from the lower world. The back is plain. Above a socle which is supported by seven putti who hold up garlands of fruit there are nine figures, besides winged Victories with fruit and flowers at the corners. In the centre stand a man and a woman, both portraits. the right are Hades and Persephone seated and Hermes Psychopompus standing before them. To the left of the pair in the centre is a group consisting of a young woman seated with two others standing on either side of her. These probably represent the Fates. Further to the left there is another female figure who stretches out her right hand to the fruit which the Victory is holding, while with her left she grasps three ears of grain. She may represent one of the initiated. On the end of the sarcophagus at the left, above a boucranion and garlands, which were never finished, are three nude youths in a boat. On the right hand end a rough looking man with a stick in his left hand is coming out of a vaulted passage, while to the left a young woman with her himation

stretched out as if to protect her is darting back. Both sarcophagi date from the second century A.D.

The Chiliasteis of Ephesus.—In Jh. Oest. Arch. I. XVI, 1913, pp. 245–248, J. Keil publishes a complete list of the  $\chi \iota \lambda \iota a \sigma \tau \epsilon \hat{\imath} s$  of Ephesus so far as known. It includes several new names.

MAGNESIA ON THE MEANDER.—A Hellenistic Grave Stele.—In Jh. Oest. Arch. I. XVI, 1913, pp. 178–182 (pl.; 2 figs.) J. Keil publishes a marble grave stele 2.20 m. high and 0.75 m. wide found near Magnesia on the Meander. The upper part is in the form of a naiskos in which is the bust of a young woman. On the lower part of the slab is a cutting intended to represent the entrance to the tomb. It dates from the first half of the first century A.D.

MELAMPAGUS.—Recent Discoveries.—In 1880 Sir W. M. Ramsay found on Mount Sipylus an inscription marking the boundary between Heracleia and Melampagus. In Jh. Oest. Arch. I. XVI, 1913, Beiblatt, cols. 163–168 (4 figs.) J. Keil describes the remains of Melampagus which are still to be seen. They consist of a finely built polygonal wall, walls of squared stones, a scarped substructure for a wall, various house walls, etc. They date from Greek and Hellenistic times.

## GREECE

ATHENS.—A Double Relief from the Acropolis.—In Jh. Oest. Arch. I. XVII, 1914, pp. 121–132 (pl.; 5 figs.) Ada von Netoliczka discusses a slab of Pentelic marble found in a late part of the wall of the Acropolis in 1910. It has on one side a figure of Athena in high relief, and on the other a winged Athena in low relief.

The Procne Group on the Acropolis.—In Jh. Oest. Arch. I. XVI, 1913, pp. 121–140 (10 figs.) C. Praschniker describes a head of Parian marble split across the face so that the right hand side is missing. It had once been built into a wall, as it was covered with mortar when found. It fits the torso of a draped woman beside whom stands a small boy. A bronze fillet or crown was once attached to the head. The group dates from the time of the Parthenon sculptures and represents Procne and Itys, as Michaelis thought long ago. Whether the figures are to be identified with the group on the Acropolis seen by Pausanias (I, 24, 3) is uncertain. They may have been a sketch by Alcamenes.

The Endowment of the American School.—The Carnegie Corporation has made a grant of \$100,000 for the endowment of the American School of Classical Studies at Athens, on condition that between January 1, 1920, and July 1, 1925, the School shall raise an additional sum of \$150,000.

CRETE.—A Stag-horn Head.—A piece of the shed antler of a stag, about 12 cm. long, cut at one end to fit on the end of a staff and with a quaintly carved face under the projecting natural burr of the severed end, is said to have been brought from Crete, and is probably Minoan in origin. It shows resemblances in style or subject to one of the gold masks from the Cretan shaft graves at Mycenae, to the head of the ivory goddess in Boston, to a terracotta head from Mochlos, and to various Cretan reliefs and frescoes, and it may

be tentatively dated at about 1600 B.C. The bone is almost petrified with age. It is now in the British Museum (E. J. Forsdyke, J.H.S. XL, 1920, pp. 174–179; pl., 3 figs.)

DELPHI.—The Argive Offerings.—In R. Et. Gr. XXXII. 1918, pp. 41-61 (6 figs.) ÉMILE BOURGUET reports the discovery by F. Courby at Delphi of three stones bearing the last part of an inscription which recorded the dedication of a tithe from spoils taken from the Lacedaemonians. This inscription is from the base of the colossal bronze representation of the Wooden Horse. dedicated by the Argives after the battle of Thyrea (Paus. X. 9, 12). A considerable number of blocks from the several courses which formed the base of this monument have been found, including a slab with a cutting for a hoof of The base was 1.58 m. in height, and stood with its longer axis perpendicular to the Sacred Way. It was 6.20 m. long and 2.70 m. wide. inscription may with probability be restored as follows: ['Αργείοι τάπόλλονι] άπδ Λακεδαίμονος δεκάταν. The block with the inscription 'Αργείοι found in earlier excavations at Delphi (Fouilles de Delphes, III, 1, fig. 24, pp. 56-57) though of the same material as the inscribed blocks found by M. Courby, and of nearly contemporary date, is not from the same monument, since the style of lettering is somewhat different, and the stone differently finished. It belongs to a massive base of which some parts have been identified. The measurements and dowel-holes of these justify the restoration of a structure 7.05 m, long and 3.627 m. wide, which seems to have stood to the east of the Horse. This base probably supported the statues of the Seven against Thebes and the chariot which Pausanias describes as Argive offerings (X, 10, 3). It is possible that the group of seven chieftains and the chariot were originally on separate pedestals. but after the dedication of the Horse were combined on a pedestal which was raised so high as not to be too much overshadowed by the Horse. The use of two different kinds of dowels in the base suggests some sort of adaptation of material from an earlier monument. The battle commemorated by the Horse was that of 414 B.C., and not the famous combat at Thyrea described by Herodotus (I, 82). Perhaps the spoils of this victory in the Peloponnesian War were sufficient to permit not only the dedication of the Horse but the re-installation of earlier monuments indicated above.

ELIS.—The Excavations of 1911-1912.—In Jh. Oest. Arch. I. XVI, 1913, Beiblatt, cols. 145-152 (6 figs.) O. Walter reports upon the excavations of the Austrian Archaeological Institute in Elis in 1911-1912. Walls were found which appear to have belonged to a gymnasium. A long, narrow building with a row of columns in the middle running east and west also came to light, and west of this a great colonnade running north and south. The foundations of a small building about 12 by 16 metres dating from the first half of the fifth century B.C. were also discovered. This may have been a treasury.

MESSENE.—Inscriptions.—In Jh. Oest. Arch. I. XVII, 1914, pp. 1–20 (9 figs.) A. Wilhelm discusses two long inscriptions from Messene, one a decree in honor of a certain Aristocles,  $\gamma \rho a \mu \mu a \tau \epsilon \dot{v} s$   $\tau \hat{\omega} \nu$   $\sigma \nu \nu \dot{\epsilon} \delta \rho \omega \nu$ ; the other dealing with the eight obol tax.

THASOS.—A Colossal Kriophoros.—In C. R. Acad. Insc. 1920, pp. 218–223 (2 figs.), E. POTTIER describes an unfinished statue of the second half of the sixth century B.C., found at the base of the east wall of the acropolis of Thasos, and recently recovered in excavations by the French School of Athens. The statue

is of island marble, and, including the base, is 3.50 m. in height. Its attitude is in general that of the "Apollos." but the arms held a ram in front of the figure. It is, perhaps, a statue of Apollo Karneios, protector of the flocks. The face is A crack in one side of the statue accounts for the fact that it was left uncompleted. In its slender proportions (the height is about seven times that of the head), its study of physical detail, and the decorative treatment of the hair it shows the influence of the Chian school, and proves its relationship to such works as the Apollos of Melos and Tenea and the Carvatides of Delphi.

ZYGOURIES.—Excavations of the American School.—During April and May 1921 excavations were conducted by the American School of Classical Studies at Athens at Zygouries, a low mound-near the village of Hagios Vasilios, about half way between Corinth and Mycenae, where prehistoric remains had previously been discovered. A considerable amount of fresh material for the study of pre-Hellenic Greece was brought to light, including objects dating from the Early, Middle, and Late Helladic Periods. The yield of pottery was extremely gratifying. The number of vases more or less complete exceeds 500, among which Early and Late Helladic fabrics, especially, are richly represented.

Numerous stone foundation walls of buildings provide much new information regarding the architecture of the Early Helladic Period. A group of houses uncovered indicate that, while the plans are irregular and show no uniformity. each house usually possesses a characteristic square chamber, quite different from the long rectangular megaron of Mycenaean times. All the buildings of the Early Helladic Period laid bare are quadrangular, and no curved walls were The houses are for the most part small, built close together, and separated from each other by narrow, crooked streets.

Among other important finds of Early Helladic date, and especially noteworthy because they are the first of their kind to be found on the Greek mainland, are a small female figurine and a button seal, both of terra-cotta, and a fine bronze dagger in splendid condition. The handle of the latter is missing, but the four rivets which once fastened it to the tang are still preserved.

The most important objects of the Middle Helladic Period were found in a cist grave, namely, a necklace of beads of crystal and glass paste, a number of coils and rings of bronze wire—presumably used for fastening the hair—two bone pins, and two vases of dull painted ware.

A potter's shop, containing a fairly complete stock in trade, proved the most interesting discovery of the Late Helladic Period. Two rooms connected by a doorway, in which there is a huge stone threshold, were cleared, and were found filled with vases, many of them standing in high stacks, one vessel inside These vases, all of the Third Late Helladic style, and all perfectly fresh and unused, include 5 large, deep craters, 3 gigantic and 9 smaller stirrup vases, more than 275 unpainted deep bowls for cooking purposes, about 75 diminutive saucers, 20 small jars, not less than 40 painted cylixes, and ladles, cups, jugs and coarse pots in lesser quantities. The majority were in fragments as a result of the fire which had destroyed the building, but a good many were removed unbroken. Among other objects deserve to be mentioned a slender knife with an ivory handle, a steatite gem, and fragments of painted wall-plaster. All the finds from Zygouries have been transported to Old Corinth. (C. W. Blegen.)

# ITALY

INSCRIPTIONS.—In Not. Scav. XVII, 1920, pp. 98–102, P. STICOTTI reports the discovery of a Greek inscription at Brestovizza and of Latin inscriptions at San Rocco-Castagnaretta and S. Geltrude, both in Reg. X. One of the Latin inscriptions records a vow of the second legion, called Adiutrix. On pp. 107–109 Sticotti publishes an inscription and four fragments from Pola and its vicinity, and an inscribed Roman sarcophagus from Sissano.

AOSTA.—A Sepulcretum.—In Not. Scav. XVII, 1920, pp. 97–98, P. Barocelli reports the discovery of a Roman sepulcretum. The tombs, which were evidently those of poor people, were arranged in no special order. A few small objects were found, some of which had been purposely broken.

AREZZO.—Brick Walls and Terra-cottas.—In Not. Scav. XVII, 1920, pp. 167-215, Luigi Pernier gives an account of the unearthing of a portion of the brick city walls of Arretium. These walls, mentioned by Vitruvius, II. 8, 9 and Pliny, Nat. Hist. XXXV, 170-173, have received little attention from writers on archaeology, in spite of the fact that some large bricks have come to light, measuring two feet in breadth and two inches in thickness (Roman). Systematic excavations for the purpose of finding the walls were begun in 1916 at Fonte Pozzulo, were interrupted after a short campaign, but were renewed in 1918 and continued until 1920. Since the results at Fonte Pozzulo were negative, the work was transferred to Catona, where an area of about 400 square metres was explored, with the result of discovering remains of the walls which in places rise to 1.30 m. and are perfectly preserved to a height of .60 m. The wall is shown by the finds to be earlier than the period of the Arretine vases, and it may, perhaps, date from that of the Etrusco-Campanian vases in the early third century B.C. (Vitruvius refers to the walls as vetusti). They differ from other brick walls, such as those of Athens and Sparta, in not resting on a stone foundation, and in being made of bricks which are not sun-dried but slightly burned, so as to give their surface a reddish color. The dimensions of the bricks are  $1\frac{1}{2}$  feet by 1 by  $\frac{1}{2}$  (Roman). In the course of the excavations numerous objects were found, including architectural members in stone, mosaics, vases and bronzes, and terra-cotta ornaments, both stamped and modelled by hand. The most interesting finds were antefixes and acroteria, and terra-cotta figures in the round or in high relief. The figures fall into four groups, distinguished from one another by the color and quality of the terracotta and by their firing. Group I is marked by a fine, compact material of a greenish-gray color, like that of the Arretine vases before they were baked, with small brown grains scattered through it. It includes the head of a youth about half life size (height .14 m.), which, after being modelled by hand, was retouched in several places with a wooden instrument, to improve the finish. There are traces of color only on the hair and on a fillet which confines it, and these are respectively a dark blue tending to brown and a light green. The head is of the Scopasian type with Hellenistic exaggeration of details (Fig. 1). It represents a beardless youth with a considerable growth of hair on the cheeks, with low forehead, deep-set eyes in which the pupils are not indicated, eyebrows prominent and strongly arched, the nasal bone strongly indicated, and the mouth partly open. It may represent a youthful Hercules or, perhaps, a sovereign, since it is similar to portraits which occur on coins of the third preChristian century. The head itself is assigned to the middle of the second century B.C.

Another representative of this group is a fine head of a woman in a Phrygian cap (Fig. 2). The proportions are the same as those of the head just described



FIGURE 1.—TERRA-COTTA HEAD: AREZZO.

and it may be the work of the same artist. The flesh was painted white and some slight traces of the color remain. The head is thrown back on the left shoulder and the face uplifted, as if to implore aid. It may represent a Niobid or a dying Amazon. A part of the back of both these heads is unfinished,



FIGURE 2.—TERRA-COTTA HEAD: AREZZO.

indicating that they were to be fastened to a background, perhaps a pediment, in such a way as to offer a three-quarters view.

Group II is distinguished by very fine terra-cotta of a reddish-vellow hue. The surface is polished and has taken on a bright patina, and the baking is perfect and uniform. To this group belongs the head of a youth in a Phrygian cap ornamented with ribbons (Fig. 3). The head is nearly two-thirds life size and is finished on all sides. The face, which is perfectly preserved, although somewhat feminine in its features is that of a young man. The pupils of the eves are indicated and there are traces of red on the face' and hair. In finish this head is comparable with the best work of the Faliscan artists of the early third century before our era. It is an Apollo type, but with Etruscan characteristics, and may, perhaps, represent Paris.

Another head belonging to this group is that of a woman in a Corinthian helmet. This also is finished on all sides and it has traces of red on the hair and on the cheek-pieces of the helmet. The other two groups, to be distinguished from I and II by the quality of their material, are represented for the most part only by fragments.

An Old Well.—In Not. Scav. XVII, 1920, pp. 215–217, Alessandro del Vita reports the discovery, in connection with the excavation of the brick city wall, of an old well at Catona, at the bottom of which were many fragments of pottery designed to form a rough filter. Although of no artistic value, the fragments throw some light on the history of local ceramics.

CORCHIANO.—Two Faliscan Tombs.—In Not. Scav. XVII, 1920, pp. 20–30, G. Bendinelli gives an account of the discovery of two Faliscan chambered tombs at a place called "Lista," about two kilometres from Corchiano, during excavations carried on between January 24 and March 18, 1916. In one of the tombs, which were in a ruined condition, there was found a large number of vases and fragments belonging to three different epochs, the archaic, the Faliscan, and the Etrusco-Campanian. Among the last named was a redfigured crater, 325 m. in height and .350 m. in diameter, having on one side representations of the resurrection of Adonis and of the Leda myth, separated by



FIGURE 3.—TERRA-COTTA HEAD: AREZZO.

a series of volutes. On the opposite side a Nike in a chiton is facing a nude youth with a cymbal in his hand. He is engaged in conversation with a woman, before whom stands a tree. The execution is fine and the designs original, the Adonis scene appearing only on a mirror (Gerhard, Etr. Sp. V, pl. 25). The style is that of the Greek and Italic vases of the fourth century before our era. There are no traces of applied color, but there are some Italic features, such as the division into two fields by means of volutes. A second tomb, found near the first one, contained 11 entire or fragmentary archaic Etruscan vases, and 107 Faliscan, one of the latter bearing the inscription mi Alsi Tismi, a new name. Thus the tombs, which indicate the presence of a necropolis in the vicinity, show indications of burials at two separate periods, the seventh-sixth centuries and the fourth century B.C. The finds belonging to each of these periods include Greek importations and an extraordinary number of small vases of a ritual character.

FERENTUM.—Ornamental Terra-cottas.—In Not. Scav. XVII, 1920, pp. 117-120, G. Bendinelli records the discovery of two ornamental terra-

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cotta tiles from the territory of Ferentum. The first represents a Doric entablature with a cyma and a projecting cornice, both of which retain traces of color. The frieze is divided regularly into triglyphs and metopes; the former are in low relief, while on the latter in high relief are masks of satvrs with bald heads, except for tufts of hair near the ears. The temples are encircled by garlands, which were painted white. The masks themselves, open mouths of which served as spouts for rain water, were red. The triglyphs and the background of the metopes were also in white. The dimensions are .66 m. by .505 by .25. The second tile is also an entablature with a plain frieze, in which there is a hole for the discharge of rain water, made at a later time. Its dimensions are .64 m, by .51 by .22. The back of the tiles is of an unusual form.

GREVE.—An Inscription.—In Not. Scav. XVII, 1920, p. 110, T. CAM-PANILE publishes with some slight corrections an inscription found near Greve in the province of Florence and already reported in C.I.L. XI, 1613.

LEONTINI.—A Unique Coin.—A supposedly unique gold coin of Leontini. weighing seven-tenths of a gram, is described and pictured by its possessor. SILVIO SBOTO, in R. Ital. Num. XXXIV, pp. 65-66. Obv., a naked woman riding a horse at foot-pace to right, holding reins in both hands; Rev., LEON-TINON (last five letters r. to l.) in quasi-circular legend; open-mouthed head of lion to r., around which four grains of barley or wheat. The probable date is 412-404 B.C.

MONFALCONE.—Roman Tombs.—In Not. Scav. XVII, 1920, pp. 99-100. P. STICOTTI reports the discovery, in 1914, of a dozen Roman tombs. Some small objects were found and two fragmentary inscriptions relating to the fons Beleni, which is, perhaps, to be identified with the warm spring at Monfalcone, now known as "i Bagni."

OSTIA.—Excavations.—In Not. Scav. XVII. 1920, pp. 41-66, G. MORETTI reports discoveries in the group of ruins between the horrea and the decumanus. At one time these ruins belonged to a series of rectangular and nearly symmetrical shops in two rows, one of which fronted on the decumanus, where the door-sills are preserved, while the other was behind them. In the course of time some slight changes were made, as appears from the character of the walls: finally, at a late period, the central part of the inner row was completely altered by the construction of a large apse in the southern wall and before it a hall in the form of a nave in three divisions. The pavement has a handsome geometric design in colored marbles. In the course of the exploration of this structure twelve inscriptions were found. Other finds were an oscillum in giallo antico. somewhat damaged, having on one side a Triton and a Nereid and on the other a male genius, facing some object which cannot be made out; a small marble statuette of poor workmanship; a life-size portrait bust of a Roman in a style resembling that of the seated old man by Zeno, son of Attinas (Helbig, Führer, II, No. 1315); and sundry fragments, including part of a Christian relief. most interesting piece of statuary was a colossal monolithic group in Parian marble, representing Commodus and Crispina as Mars and Venus. group, which was intended for a niche, as appears from the finish of the back, was originally composed after the type of the Borghese Mars in the Louvre and the Venus of Melos. The workmanship of the bodies is good, but the female head was taken from another statue, while the male head has been worked over (it was formerly bearded). The original group was either an ideal one, representing Mars and Venus, or more probably one of Marcus Aurelius and Faustina. The nature of the finds is somewhat surprising, since the building with the apse was probably a Christian church. Ibid. XVII, 1920, pp. 156-166, R. Paribeni describes the excavation of a block of buildings west of the temple of Vulcan, and of the quarter north of the porta Romana. In the first was found a temple, probably an Augusteum, resting on the ruins of two earlier temples; also three houses, interesting in their plan and architectural details. but unfortunately in a poor state of preservation. The excavations near the porta Romana threw additional light on the question of the walls and gates. The wall to the north of the gate is in perfect alignment with that to the south and of the same construction. The walls towards the sea are much stronger than those towards the land. The gate was flanked by two quadrangular towers. An interesting inscription records the dedication, in 199 A.D. of an altar to the nymphs by a certain Amnoin, who was liberatus numine earum gravi infirmitate. A relief on the altar, representing a dog running to the right and behind it a bearded man who has been thrown down and is raising his arms in supplication indicates that the gravis infirmitas was hydrophobia, on which some interesting notes are given. Other inscriptions and fragments are published, including one from the piazzale delle Corporazioni, restored as (naviculariorum Ale)xandrin(orum).

POGGIO-CALVELLO.—Miscellaneous Discoveries.—In Not. Scav. XVII, 1920, pp. 112–117, G. Bendinelli relates the discovery of a chambered tomb at Poggio-Calvello near Tuscania, which had been rifled of its contents; also of the remains of a building of the imperial period, forming part of a bath, near the church of S. Maria Maggiore at Tuscania. These are the only remains of that period at Tuscania. One inscription was found.

PORTO BELTRAME.—Three Epitaphs.—In C. R. Acad. Insc. 1920, pp. 299–300, R. CAGNAT reports the discovery on the estate of Signor Cardini near Porto Beltrame of three funerary inscriptions. One is remarkable because it commemorates the curious fact that the death of its subject fell on his birthday and at the same hour of the day with his birth.

ROME.—A Bronze Portrait Head.—In Ausonia, IX, 1919, pp. 123–138 (pl.; 5 figs.) a commission appointed by a Royal Tribunal at Rome, and consisting of R. Lanciani, F. Hermanin, and R. Paribeni, reports on the authenticity of a bronze portrait head of an elderly woman, found at Chiavenna in 1879. Considering that the work shows many details which, though unusual, have analogies in ancient art; that a modern forger who had acquired enough archaeological knowledge to make the head would probably have produced work of better quality; and that the price at which the head was originally sold was quite low, the commission unanimously declares the head an ancient work. It should be assigned to a date in the second century A.D., probably to the Antonine period.

Columbaria.—In the angle formed by the Via Casilina (ancient Labicana) and the vicolo dei Carbonari, about three kilometres to the left of the former road as one goes from Rome, an important series of columbaria has been found, some of which have been published in *Not. Scav.* for 1912, 1914, 1915, 1917, and 1918. In this great necropolis of the first and second centuries of the Empire four more columbaria have recently been unearthed, near those previously discovered and connected with them. The walls show traces of

polychrome decoration, in which blue predominates, and under the niches are painted shield-shaped places for the names of the owners or occupants. Only two of these contained names, both of which were graffiti, Successo and C. Ann(ius) vixit annis xiix. The other names had been inscribed on marble slabs attached to the wall, and these had either been carried off or were found in the debris which filled the columbaria. Of the latter forty are published, along with nine fragments forming part of a list of proprietors of ollae. The names are those of slaves or freedmen belonging to the end of the first or the beginning of the second century of the Empire, including Apollonius, slave of Maecenas and afterwards of a Nero, probably the eldest son of Germanicus and Agrippina. (G. Mancini, Not. Scav. XVII, 1920, pp. 31–41.)

A Hypogaeum.—In Not. Scav. XVII, 1920, pp. 123–141, G. Bendinelli records the discovery of a hypogaeum with paintings near the Viale Manzoni, between the Via di Porta Maggiore and the Via di S. Croce in Gerusaleme. It has a mosaic pavement which is badly damaged, although the central part, with an inscription to an Aurelius, is preserved. The paintings are of different periods, extending from the second half of the second century of the Empire to the first half of the third. They include what is possibly the earliest known representation of the twelve apostles, several pictures of the good shepherd, a seated reader and a flock of sheep, perhaps representing faithful hearers, and Odysseus as a beggar.

A Jewish Catacomb.—In Not. Scav. XVII, 1920, pp. 143–155, R. Paribeni records the excavation of a Jewish catacomb on the Via Nomentana in the villa Torlonia. It was adorned with paintings and yielded two Latin and forty-eight Greek inscriptions of the second and third centuries. The villa Torlonia contains a large marble sarcophagus, on which is sculptured the seven-branched candlestick, but it is not known whether it was found in the villa or brought from Porto.

Miscellaneous Discoveries.—In Not. Scav. XVII, 1920, pp. 218–233, G. Mancini reports various discoveries. At Capo di Bove on the Via Appia antica an inscription. At Tormorancia on the Via Ardeatina a sarcophagus of Greek marble in a perfect state of preservation except for the loss of the cover. It is sculptured in the style of the end of the second century with a representation of the myth of Endymion and Selene. Several inscriptions, some of which were found in the same locality as the sarcophagus, others on the Via Labicana near Torpignattara, on the Via Nomentana, and in the former villa Patrizi (one of these mentions the vicus Lori, = Lorium), and on the Via Ostiensis. On the property of the società Colla e Concini di Milano, two kilometres from the Via Praenestina, there was found the headless statue of a fisherman (1.44 m. by .47 m.), a copy of a Hellenistic original of the third century, apparently made in the second century of our era; also a marble statue of a satyr, belonging to the best imperial period, which had served as a fountain ornament; and a sepulchral gallery containing Christian inscriptions.

The Thermae Suranae.—In *Not. Scav.* XVII, 1920, pp. 141–142, R. Paribeni reports the discovery, during a restoration of the church of S. Sabina, of the inscription of the *Thermae Suranae*, which was found on the door-post of the convent near the church. The inscription is on a marble slab measuring 2.45 m. by .48, which is about half of the original length. The name of the emperor is restored as Gordianus III. The baths, perhaps, occupied the site

of the domus Surae (Mart. VI, 64), which seems to have been approximately that of the present "trattoria del Castello dei Cesari."

SARDINIA.—Bronzes from Terranova Pausania.—In Not. Scav. XVII, 1920, pp. 91–96, A. Taramelli publishes a collection of bronze utensils, discovered some years ago at Terranova Pausania and at present in the museum at Cagliari. While none of them is inscribed, it is evident from their design that they belong to a good Roman period. They are believed to be of local manufacture, intended for the kitchen or table use of some well-to-do citizen of Olbi or of the ager Olbiensis. They include a candelabrum, several small vases, a heater for hot water, apparently two frying-pans, and a large number of detached handles, some of which are curiously ornamented.

SELINUNTO.—The Temenos of Demeter.—In Not. Scav. XVII, 1920. pp. 67-91. E. Gàbrici gives an account of explorations in the temenos of Demeter Malophoros at Gaggera, of which no official record has been published since 1898. Three brief campaigns, in 1902, 1903 and 1905, resulted in clearing the north angle of the temenos and uncovering a smaller temenos to the north of the larger one. In 1915 the excavations were resumed with the purpose of clearing the western end of the larger temenos and the space between the two sanctuaries. They resulted in the discovery of a large number of votive objects, belonging to a period extending from the latter part of the seventh century to the end of the fifth before our era, the earliest being found within the western angle of the larger temenos. The votive objects include an interesting series of figurines and masks. The female figures, which are by far the more numerous, represent the goddess with various attributes, the dove, pomegranate or garland, and in later times a torch or little pig. Sometimes she carries in her arms the infant Kora, or perhaps Eros. These figurines fall chronologically into four groups, in the first of which the earliest specimens are of Ionic-Asiatic manufacture, sometimes showing Egyptian influence, while the second shows the traditional female type of the sixth century, represented by the maidens of the Acropolis. A complete classification and publication of the discoveries is in preparation by the Superintendency of Palermo.

SICILY.—Coin-Portraits of Sicilian Tyrants.—The total loss by accidental or studied destruction of statues of the rulers of Sicilian cities in the period of the tyrannies lends especial importance to the study of their portraits on coins. The entire series of such likenesses is passed in review by Salvatore Mirone in R. Ital. Num. XXXIV, pp. 5–30 (figs.).

SUTRI.—A Bronze Bowl.—In *Not. Scav.* XVII, 1920, pp. 121–122, G. Bendinelli describes a barbaric bronze bowl found at Sutri, in the district known as "Condotti."

TRIESTE.—The Arco di Riccardo, and Discoveries.—In Not. Scav. XVII, 1920, pp. 102–107, P. Sticotti describes the isolating of the Roman arch called di Riccardo, the discovery of a bilateral relief of poor workmanship, and the finding of a cinerary urn.

UMBRIA.—Miscellaneous Discoveries.—In the district called Montepiglio, near the Pelasgic walls of Aemilia, G. Mancini (Not. Scav. XVII, 1920, pp. 15–20) records the discovery of fragments of Roman pottery of various kinds, which, taken in connection with an excellent quality of clay, suggest the presence there in antiquity of a manufactory of pottery. Excavations revealed three parallel walls made of large rectangular blocks of tufa, running

northeast and southwest and bounded on the north by another wall. Several brickstamps were found, all of which were previously known. At Montepelato. near the road leading from Aemilia to Giove, a well was found covered with a circular slab of stone with a hole in the middle. This hole was stopped up by a marble bust, the head belonging to which was found near by, a portrait of the time of the Antonines. Near the well there were also found the plinth and five fragments of a statue of the youthful Bacchus leaning against a tree-trunk; also two large stelae of trapezoidal form, 1.15 m. by .70 by .19, each of which had on one side a large and deep indentation of the same trapezoidal form. Similar stones, which have been found here and there near Aemilia, always occur in pairs, at a distance from each other varying from a metre to 2.20 m. Their purpose is uncertain, but they may have had some funerary use. Near the church of S. Agostino, which has been made the depository of the local antiouities, there is an architectural fragment, found in the Via Cayour at Aemilia, with the inscription Sex. Avie(nus), which also occurs in C.I.L. XI. 4383 from the same locality.

VENEZIA GIULIA.—Excavations.—In Not. Scav. XVII, 1920, pp. 1-14, G. Calza describes work in newly acquired Italian territory, undertaken with the purpose of continuing the unfinished excavations of the Austrians, arranging the collections in the museums, and isolating and protecting the Roman monuments at important centres. At Pola the buildings obstructing the temple of Rome and Augustus have been cleared away. Excavations were made to determine the ancient level of the street, to define the line of the buildings which closed the forum in the direction of the sea, and to ascertain the exact proportions of the cella. The arch of Sergius, commonly known as the Porta Aurata or Porta Rata, which formed the inner decoration of the gate leading to the Quarnero (sinus Flanaticus) was cleared of earth down to its foundations. Nothing of value or of topographical importance was found except an inscription mentioning the Velina tribus, which also occurs in three previously found inscriptions of Pola. At Aquileia the mosaic pavement of a second basilica was unearthed, lying to the north of, and parallel with, that of the Bishop Theodorus. The dimensions of the pavement (37.40 m. by 17.04 by 17.20) are nearly identical with those of the other basilica, but it was in part destroyed by the foundations of the Campanile Poponiano. The purpose for which the newly found basilica was used has not yet been determined. payement is a fine one and contains three fragmentary inscriptions. Grado a hall was found containing a fine Byzantine mosaic. It consists of circles and squares containing various designs, a cross, the swastica, two birds, etc. A fragmentary inscription records the payment of vows. Above this is a second mosaic, consisting of a large circle in which are inscribed nine smaller ones. Inscriptions in five of these small circles mention the payment of vows by three notarii, a lector, and a diaconus. In another we are told that the hall was built by Elia, patriarch from 571 to 586.

## FRANCE

BRILLE-BOEUF (CÔTE-D'OR).—A Gallo-Roman Iron Furnace.—In R. Arch., fifth series, XIII, 1921, pp. 127–131 (fig.), HENRY COROT describes the remains of a Gallo-Roman furnace (haut-fourneau) found at a place called

Brille-Boeuf, between Verdonnay, Planay, and Lavoisy, in the Côte-d'Or. In the same region are many other traces of Gallo-Roman iron-working.

ISTURITZ.—Engraved Signs.—In R. Arch., fifth series, XIII, 1921, pp. 33–35 (3 figs.) E. Passemard publishes three fragmentary horn objects from the cave of Isturitz. On one of them is, apparently, a relief representing a twig with buds. The incised lines on the other objects may be stylizations or degenerations of similar representations. They are probably not in any sense alphabetic, but had some magic meaning.

PARIS.—An Aryballus in the Louvre.—In R. Arch., fifth series, XIII, 1921. pp. 7-17 (fig.), K. Friis Johansen publishes and discusses an aryballus (height 0.062 m.) acquired by the Louvre. It is of the class called Proto-Corinthian, which the writer, following Loeschcke, prefers to call Sicvonian. The decoration consists of rays at the bottom, then a narrow band containing a swan and two dogs pursuing a hare, then a wide band containing battle scenes. a lotus-palmette pattern on the shoulder, around the mouth a circle of pistils with round heads and around this a circle of curved crockets. The flat handle is decorated with a pattern of squares and triangles. Shining varnish and three dull colors (dark red, light brown, vellow) are used. Seven related aryballi are cited, the most familiar of which is the "Macmillan" vase (J. H.S. 1890, p. 167, pls. I, II). These vases are usually assigned to the sixth century B.C., but two of them (Taranto, Jb. Arch. I. 1906, p. 118, 5; Syracuse, Mon. Antichi. XVII. p. 157, fig. 116) were found in association with subgeometric ware. They must, therefore, be assigned to the middle of the seventh century B.C. In a note added to this article (pp. 17-20) E. Pottier points out that the conclusion just stated is not inevitable, and maintains that the later date for these vases is more probable than the earlier.

A Lecythus from Kertch.—A fine lecythus with figures in relief, discovered at Kertch in the Crimea, has been acquired by the Louvre. In shape and in technique it is a pendant to the lecythus signed by Xenophantus, also in the Louvre (Rayet and Collignon, Céramique grecque, pp. 264–265), and E. POTTIER, who publishes the new accession in R. Ét. Gr. XXXII, 1919, pp. 406-414 (pl.: 2 figs.) attributes this vase to the same potter. The figures, from left to right, are Athena (seated), Dionysus (standing), Demeter (seated), Persephone (standing), Triptolemus, who is represented in the upper part of the field of composition, seated in his winged chariot, and a seated youth of somewhat effeminate form. Since this figure cannot be Heracles, who is sometimes associated with the Eleusinian deities; and since he seems to be too much at ease among the gods to be Eubouleus, the swineherd of Eleusis, he is probably to be identified as Apollo. This composition, as well as the Eleusinian representations on the hydria from Cumae (Daremberg and Saglio, Dictionnaire des antiquités, s.v. Eleusinia, fig. 2639) and on the pelice from Kertch (ibid. fig. 2630), is probably derived from paintings or sculptures at Eleusis.

An Obol of Astacus in Acarnania.—In R. Ét. Gr. XXXII, 1919, pp. 10–15 (fig.) E. Babelon describes an obol of Astacus in Acarnania, belonging to the collection of the late Dr. Pozzi, a distinguished surgeon. The coin shows a head of Asclepius on the obverse and a cupping-glass and scalpel on the reverse, and is to be dated in the fourth century. There are some other indications of a cult of Asclepius in Acarnania. M. Babelon also notes other representations of cupping-glasses on ancient monuments.

Tw Ophite Intaglios.—In C. R. Acad. Insc. 1920, pp. 147–156 (2 figs.) Adrien Blanchet publishes two intaglios with symbols of the Gnostic sect of serpent-worshippers known as the Ophitae. On one side of each is represented a daemon with a human body, an ass's head, and legs which take the form of serpents. He holds a tablet on which is inscribed  $|A\Omega\rangle$ , the name of a daemon frequently represented on Gnostic gems. The Gnostic books name the Egyptian god Seth as one of the Rulers of Heaven, and describe him as having the head of an ass. The recognition of this daemon of the Ophitae throws light on the interpretation of the celebrated graffito of the Palatine, representing the crucifixion of a man with an ass's head. It is quite possible that this drawing, which has been generally supposed to be a caricature by an enemy of Christianity, is really the serious production of a cult in which Gnostic beliefs were superposed on Judaeo-Christian traditions.

The Pozzi Collection.—In R. Arch., fifth series, X, 1919, pp. 230–234 (15 figs.) S. R(EINACH) gives (with brief notes) line drawings of some of the chief sculptures of the collection of the late Dr. Pozzi, which was sold, June 25–27, 1919.

A Statuette from Clazomenae.—A fragment of an archaic statuette of a seated female figure, found at Clazomenae, has recently been given to the Museum of the Louvre, and is discussed by ÉTIENNE MICHON in R. Ét. Gr. XXXII, pp. 393–397 (2 figs.). It comprises the head and bust of the figure, lacking the left arm. The position of the figure is rigid. The texture of the chiton is indicated by incised lines running obliquely from the arms to the breasts, and below the breasts by vertical lines. The features are much defaced. The hair falls in heavy masses on either side, and is bound by a fillet above the forehead. The fragment seems somewhat earlier in style than the Aphrodite of Clazomenae in the Louvre (B.C. H. XXXII, 1908, p. 265), which Collignon dates about the middle of the sixth century. The material is limestone.

A Vase-fragment in the Style of Hieron.—In R. Ét. Gr. XXXII, 1919, pp. 403–405 (fig.) M. MORIN-JEAN describes a red-figured fragment in his father's collection of Greek vases. It shows the head of a bearded man, tilted backward in the grasp of a youth behind him, while at the left appears a hand holding an oenochoe, apparently with the intention of pouring from it into the man's mouth. Gestures, poses, drawing of chin, mouth, hair, eyes, fingers, associate this fragment with the Lysis-Hieron group. It is probably to be attributed to Hieron or at least to his school.

SAINT-JEAN-DE-GARGUIER.—Antiquities.—In R. Ét. Anc. XXIII, 1921, pp. 120–123, E. Duprat reports the discovery of miscellaneous antiquities at the château of Saint-Jean-de-Garguier: (1) a fragment of a funerary inscription of Roman date, in local limestone; (2) a Gallo-Roman relief, representing a lion, also of local stone; (3) coins ranging in date from 138 to 337 A.D. C. Jullian adds a conjecture regarding the name Garguier, which he thinks may have a connection, either derivative or cognate, with Gargara in Asia Minor. Garguier was in ancient times the most important centre of native population in the region of Marseilles.

SAVIGNY.—An Inscription.—In R. Ét. Anc. XXIII, 1921, p. 110, C. Jullian republishes an inscription from Savigny (C.I.L. XIII, 1663). A ecent copy vindicates the authenticity of this epitaph, which was suspected rby the editors of the Corpus.

#### **GERMANY**

BERLIN.—A Greek Bronze.—In Ber. Kunsts. XLII, 1920–1921, pp. 6–12 (6 figs.) K. A. Neugebauer reports that the Antiquarium in Berlin has acquired by gift a Greek bronze statuette of fine quality from the Lessing collection in Berlin. The modern head has been removed. The figure, which in its present condition is 0.213 m. in height, is that of a god, probably Zeus or Poseidon. The motive—a god standing with the left arm raised and supported by a spear or sceptre, is derived from the Argive art of the first half of the fifth century B.C.; but the posture shows the influence of Polyclitus, while the proportions, somewhat more slender than those of Polyclitus, suggest that the date of the work is the early part of the fourth century.

A Graeco-Egyptian Relief.—In Ber. Kunsts. XLII, 1920–1921, pp. 15–22 (3 figs.) H. Schäfer publishes a Graeco-Egyptian relief recently added to the Berlin collection. It is of limestone, and shows a man and his wife walking to the right, accompanied by a cow and a steer, represented on a smaller scale. The man carries a calf, the woman various articles of food suspended on a pole which she supports as a yoke. The woman's dress has the form usually associated with Isis. In spite of a general adherence to traditional forms, there are many details of modelling in which the relief betrays Greek influence. The male figure is an almost exact replica of one in a relief in the Pelizaeus Museum at Hildesheim.

The Jacoby Collection of Oriental Art.—In Ber. Kunsts. XLII, 1920–1921, pp. 29–42 (11 figs.) Otto Kümmel describes the magnificent collection of some two thousand objects of oriental art recently given by Gustav Jacoby to the Abteilung für ostasiatische Kunst of the Berlin museums. It includes Chinese and Japanese paintings, Japanese lacquers, sword-guards and other metal objects, and pottery.

New Fragments of Greek Music.—In R. Arch., fifth series, X, 1919, pp. 11–27, Théodore Reinach publishes, with notes and translation, the text of the verses, and transfers to modern musical notation the ancient musical signs, written on the verso of a papyrus in Berlin (Berliner Griechische Urkunden, II, 696; pap. 6870). In the previous publication by Schubert (Sitzb. Berl. Akad. 1918, pp. 763 ff.) no attempt was made to interpret the musical signs. The music is very simple. Several points are uncertain. The papyrus dates from the second century A.D.

MUNICH.—The Terra-cottas of the Loeb Collection.—The interesting terra-cottas of the collection of James Loeb have been published in two sumptuous volumes. The introduction is by Mr. Loeb, the catalogue itself by Johannes Sieveking. The collection contains Greek terra-cottas of all classes from the primitive idols of the fifth century to late Alexandrian caricatures, as well as Italian masks, faces, and reliefs of various dates extending well into the period of the Roman Empire. A particularly fine piece is a portrait head of Cicero. The terra-cottas were found in regions as far apart as southern Russia, Egypt, and Italy. Many of them are from Greece and Asia Minor. [Die Terrakotten der Sammlung Loeb, herausgegeben von Johannes Sieveking mit einer Einleitung von James Loeb. 2 vols. xvi, 42 pp. (64 pls.; 8 figs.); ii, 70 pp. (64 pls.; 19 figs.). Munich, 1916, A. Buchholz.]

# AUSTRIA AND HUNGARY

EXCAVATIONS OF THE AUSTRIAN ARCHAEOLOGICAL INSTITUTE IN 1912 AND 1913.—In Jh. Oest. Arch. I. XVI, 1913, Beiblatt, cols. 93–144 (10 figs.) E. Reisch reports upon the excavations carried on by the Austrian Archaeological Institute in 1912 and 1913 in various parts of the Austrian Empire. Work was done at Teurnia, Aguntum, Virunum, Iuvenna, Colatio, Pettau, Flavia Solva, Emona, Aquileia, Pola, Obrovazzo, Nona, and Salona. The excavations at Burnum near Zara and at Aequum near Salona are described in greater detail. Ibid. XVII, 1914, Beiblatt, cols. 5–86 (65 figs.) R. Egger gives a full account of the discoveries at Aguntum, Teurnia and Virunum. They consist of house and town walls, Latin inscriptions, pottery and minor antiquities of various kinds. Ibid. cols. 87–154 M. Abramić describes the fragments of rude sculpture, inscriptions, brick stamps, etc. from Pettau, and gives a plan of the excavations. Ibid. cols. 161–184 (14 figs.) A. Gnirs tells of the excavations at Pola.

ABAUJ SZEMERE.—A Prehistoric Girdle-Ornament.—In Sitz. Anth. Ges. 1913–14, pp. 49–50 (fig.) Baron F. Nopcsa reports the discovery of a number of prehistoric bronze objects at Abauj Szemere in Northern Hungary. The most interesting is an elaborate girdle ornament. A piece of rectangular shape has the form of a sort of lattice enclosing and supporting disks, and to one of the long sides is attached an elaborate series of chains and pendants.

AU.—The Excavation of the Roman Cemetery.—In Jh. Oest. Arch. I. XVII, 1914, Beiblatt, cols. 203–256 (50 figs.) A. Schober describes the contents of certain graves in the Roman cemetery at Au in the Leitha mountains. There were both cremation and inhumation burials, and in or near the graves there were found many vases, small bronzes, Latin inscriptions, grave reliefs, etc.

ENNS.—Prehistoric Objects.—In Mitt. Anth. Ges. XLVI, 1916, pp. 1–36 (3 pls.; 3 figs.) the prehistoric objects found at Enns in Upper Austria are classified and described by Adolf Mahr. The situation of the town near the confluence of the Enns and the Danube gave the place a commercial importance in the prehistoric period. No certain remains of the Palaeolithic period were found here, but many axes, arrow-heads, and other objects of Neolithic date have been discovered, and numerous bronze implements, weapons, and ornaments, with some pottery of the earlier and later periods of the Bronze Age. Some of the earlier pottery is of a type which comes from the region of Lower Austria and Western Hungary: gray-black or yellow-brown clay, with thin walls, shaped with some elegance. Remains of the Hallstatt and La Tène periods are comparatively scanty.

GARS.—Prehistoric Fortifications.—In Sitz. Anth. Ges. 1913–1914, pp. 3–4 (2 figs.) R. Much describes briefly the remains of a prehistoric fortification near the Schimmelsprung in the vicinity of Gars. The fortification has the shape of a horseshoe. He gives a sketch of another early fortification on the Taberberg between Thunau and Rosenberg, and points out that the word Taber, which has come into the Magyar and other Eastern European languages from the Turkish, and means fortification or fortified camp, often occurs in the names of places where such prehistoric mounds have been found.

HASCHENDORF.—A Prehistoric Bronze.—In Mitt. Anth. Ges. XLIV, 1914, pp. 316-326 (2 pls.; 3 figs.) J. R. BÜNKER reports the discovery of a

remarkable bronze object at Haschendorf near Neckemarkt, apparently on the site of a prehistoric cemetery. A plate of bronze bent into a cylindrical form, like a crown, is pierced with large circular holes, and ornamented with bosses and lines of incised dots. It rests on a series of wheel-shaped supports, and is crowned by a circular bronze plate ornamented with concentric circles of zigzag lines. Montelius dates a similar object from Sweden in the First Bronze Age. It is uncertain whether the bronze was a table of offerings, or whether, in a reversed position, it served as a hanging receptacle.

PETTAU.—The Roman Bridge.—In Jh. Oest. Arch. I. XVII, 1914, Beiblatt, cols. 155–160 (2 figs.) V. Skraber describes the remains of the Roman bridge at Pettau, including part of an inscription which seems to date the structure in the time of Hadrian.

SALZBURG.—Bronze Age Remains.—In Sitz. Anth. Ges. 1913–1914, pp. 55–57 (2 figs.) M. Hell reports the discovery of remains of the Bronze Age on what seems to have been a sacrificial site on the Gosserberg near Salzburg. Ashes, bones, and sherds were found. The earliest pottery suggests the Neolithic style, but probably belongs to the earliest Bronze Age. Later examples are ornamented with rows of finger-nail marks and with incised lines and bosses. A few late sherds belong to the Hallstatt period.

VIENNA.— Two Bronze Statues from Benin.—In Mitt. Anth. Ges. XLVI, 1916, pp. 132–136 (pl.; 2 figs.) Franz Heger describes two curiously realistic bronze statues of dwarfs from Benin, and a relief representing a negro, whose figure is covered with a net-like ornament, perhaps representing painted ornament of the person. The discussion of these objects is followed by a detailed catalogue of the objects from Benin in the Naturhistorisches Museum in Vienna. Forty-three are metal plates with reliefs which for the most part represent negroes, but in some cases Europeans and animal figures. There are also figures and heads in the round, and miscellaneous metal objects, as well as ivory figures and ornaments.

A Military Diploma of the Year 71 A.D.—In Jh. Oest. Arch. I. XVII, 1914, pp. 148–193 (2 pls.) W. Kubitschek publishes a perfectly preserved military diploma dating from the year 71 a.D. It was found between Kavala and Dedeagatch, Thrace, and is now in the Kunsthistorisches Museum, Vienna.

# GREAT BRITAIN

CHESTER.—The Roman Cemetery.—In Ann. Arch. Anth. VIII, 1921, pp. 49–60 (3 pls.) R. Newstead publishes the second and concluding part of his report on the excavation of the Roman cemetery on the Infirmary Field at Chester. (For Part I, see *Ibid*. VI, 1914, pp. 121–167.) Coins of Antoninus Pius and Commodus discovered in the graves prove them to be Roman and of the second half of the second century or the early part of the third. Most of the graves are shallow trenches, the floors spread with pounded brick or tiles, the burials protected by roof-tiles, many of which have the stamp of the Twentieth Legion. Sepulchral vessels and other objects buried in the graves seem to have been intentionally broken. The region designated as Site X yielded a variety of objects of bronze, iron, lead, glass, and especially pottery, includ-

ing twenty-five pieces of terra sigillata. A paved area and two paved footways, apparently constructed as paths across the cemetery, were discovered.

HOLKHAM.—A New Portrait of Plato.—A marble head at Holkham House was recognized by F. Poulsen in 1919 as the long-desired individualized portrait of Plato. It is a Roman copy of the second century A.D. from a Greek original of the middle of the fourth century B.C., and it represents an old man of great dignity and intellectual power and of fiery temper. It has certain characterizing features of the numerous class of heads of Plato that is, perhaps, best represented by the Vatican bust marked Zeno, but lacks the generalized element in that type which relates it closely to the still not clearly individualized old men of the early fourth century Attic grave reliefs. The original of this common type may have been a statue set up on the grave of the philosopher, copies of which would readily be bought by the uncritical Roman traveller to furnish his library at home. The Holkham head is a vastly superior work and may with some plausibility be ascribed to the gifted Silanion. (J. H.S. XL, 1920, pp. 190–196; 2 pls.; 2 figs.)

OXFORD.—Acquisitions of the Ashmolean Museum in 1919.—In R. Arch., fifth series, XI, 1920, p. 376, S. R. gives a list of important acquisitions of the Ashmolean Museum in 1919: 1, Marble figurine of Sumerian style, from Istabet; 2, Ivory Hittite statuette bought at Aleppo; 3, Steatite weight in the shape of a couchant calf; weight, four shekels; on the base a relief of Hittite style; 4, gold ring of Aegean origin; on the bezel an archer-god suspended in the air above two women, one of whom seems to be fleeing, the other stricken down; 5, Fine Hellenistic head from Rome, from the collection of Viscount Downe; the hair resembles that of the Athena (?) head at Bologna; 6, Six Rhodian askoi in form of animals, with paintings; 7, Recumbent goats, bronze with head inserted, weighing 20 Corinthian staters; 8, Hair-binder; silver, Arabian style of the tenth century; 9, Collection of 186 historical English medals (1545–1897); 10, 162 Celtic coins (of which 44 are British gold coins) from the collection of Sir John Evans.

STONEHENGE.—Recent Investigations.—In The Antiquaries Journal, I. 1921. pp. 19-39 (3 pls.; 13 figs.), Lt. Col. W. HAWLEY and C. R. PEERS present an interim report on recent operations and discoveries at Stonehenge, which has become the property of the Nation by the gift of Sir Cecil Chubb of Bemerton. The methods by which the insecure stones have been straightened are described. Investigation of the soil accompanied the work of restoration. and revealed quantities of sarsen fragments, flint implements and chips, bone fragments, fragments of Romano-British pottery and other small objects. The finds at the base of the vertical stones permitted interesting inferences regarding the way in which they were originally set in place. The stone was slid down an inclined plane to the hole in which it was to stand, then drawn into an upright position against a wooden prop, and steadied by posts driven into the soil in front. Later the protruding posts were burned, so that the soil at the base of the stone should not be disturbed. The series of depressions within the circular earthwork, known as Aubrey's Holes, was investigated. vary in depth from two to three feet, and in diameter from two to five feet. It is probable that the foreign stones found at Stonehenge once stood in them. forming a circle within the earthwork. Later cremated human remains were buried in them. A cutting through the rampart and ditch showed that the

vallum was a low one of chalk and rubble, and that the ditch, about 39 inches deep, contained prehistoric, Romano-British, and later relics.

TRAPRAIN LAW.—A Hoard of Silver.—In The Antiquaries Journal, I, 1921, pp. 42–47 (5 figs.), A. O. Curle reports the discovery of a remarkable hoard of Roman silver, apparently of about the fourth century of our era, at Traprain Law in the County of Haddington, East Lothian, Scotland. The ornament of many objects had Christian motives; others were pagan. None showed any Celtic influence; on the other hand some were of distinctly Teutonic style. It is inferred that the silver is the booty of some raid made by Saxon pirates on the coast of Gaul, at the time when the Visigoths were in occupation of Western Gaul. The silver had apparently been hastily abandoned in the stress of some danger.

## NORTHERN AFRICA

AUNOBARI.—Two Inscriptions.—In C. R. Acad. Insc. 1920, pp. 140–146, L. Poinssot publishes two inscriptions which were discovered near the ruins of Aunobari, in the vicinity of Dougga. One records a judicial decision in a dispute of boundaries between the Aunobaritani and one Julius Regillus. The decision given by the legate of the proconsul was after appeal confirmed by the proconsul himself. The other inscription is a list of ten names of scribae and other officials, probably attached to a similar decree on a boundary question. In this list the inclusion of the haruspex of the governor is of interest, since there is no other epigraphic evidence of such an officer. The general style of lettering shows that these inscriptions are later than Hadrian and earlier than the Syrian emperors.

BULLA REGIA.—The Donors of the Thermae.—In C. R. Acad. Insc. 1920, pp. 325–329, L. Cagnat publishes a fragmentary inscription from Bulla Regia, showing that the Baths in this city "were constructed in the last years of the second century of our era at the expense of a family of the city, and particularly of a certain Memmia Fidiana, daughter of Memmius Fidius, a former consul."

Excavations.—In. C. R. Acad. Insc. 1920, pp. 323–325, L. Carton reports that the excavations of the Thermae at Bulla Regia have been continued. A structure with a curved façade in the hypocaust hall has been disengaged, and proves to be of two stories. The upper is in the form of a niche. The keystone of the arch is ornamented with a female bust in relief. The lower part has an arch which is cut by the suspended mosaic floor of the hall, so that at the base it opens into the hypocaust and above into the hall. The polygonal subterranean structure east of the baths was further explored. It was probably connected with the baths. The room above it had a fine mosaic floor and a vaulted ceiling with stucco decorations in relief. On the site of the Christian cemetery 200 metres north of the Nymphaeum were found architectural fragments which indicate that a church stood on this site.

CARTHAGE.—An Ancient Fountain.—In C. R. Acad. Insc 1920, pp. 258–268 (2 figs.) L. Carton describes an elaborate series of structures connected with a fountain which he discovered north of the "wall of forty metres" which forms the north angle of the maritime fortification of Carthage. The fountain was

at the foot of a ravine, not far from the shore. A chamber partly cut in the rock, at the source of the fountain, adjoins a long gallery or passage through which the water is conducted to a vaulted hall, 20 m. long, in the centre of which is a channel 1.80 m. deep, formerly covered with slabs. The vaulted hall opens through a door of finely cut stones into a vaulted reservoir, about 6 m. square. A passage led around one side of the reservoir from the vaulted hall to the front of the building. The facade had four pilasters and two openings, one of which led into the passage, while the other was a false door. that the "salle de captation" at the source and the adjoining passage belong to the Punic period. The vaulted hall and stairs descending to it were constructed in Roman times. Later the stairs were abandoned and a vaulted reservoir constructed in front of the hall. The elaborate facade is of still later date. Between this facade and the "wall of forty metres" extends an imposing buttressed wall; and in front of this was found a great mass of debris, including architectural and sculptured fragments, pottery, stucco revetments, and inscriptions, indicating that some imposing building, perhaps a temple, stood above the wall. The discovery of a quantity of murex shells suggests that there were dveing works here, in convenient proximity to the fountain. It is probable that the two thousand amphorae discovered in this region by Pére Delattre also had a connection with the fountain. They seem more numerous than was necessary for supplying ships with water. Possibly the place where these jars were discovered was a wine-cellar. But a graffito on one jar. Servate vita (sic) qui ab obnibus (sic) zelatur, is tentatively interpreted by M. Carton as a reference to a supposed medicinal quality in the water of the fountain; in that case the amphorae might be water-jars. R. Cagnat, however, suggests quite different interpretations of this inscription (*Ibid.* pp. 269–272).

The Basilica near Saint Monica.—In C. R. Acad. Insc. 1920, pp. 191–199 (fig.) Père Delattre reports on his exploration of the great ruined basilica near Saint Monica at Carthage. The atrium is completely occupied by Christian burials, which are grouped about a central crypt which is 5 m. deep, 18 m. long, and 4.25 m. wide. Other crowded graves are found outside the basilica, especially between the building and the ravine. The discovery of sarcophagi which have been covered by the walls of the basilica proves that there was a cemetery on this site before the church itself was built. Père Delattre publishes several of the funerary inscriptions, some of which were executed in mosaic.

DJEMILA.—New Names of Martyrs.—In C. R. Acad. Insc. 1920, pp. 290-297, Paul Monceaux outlines the ecclesiastical history of Djemila, and reports the discovery of a stone which was, perhaps, set behind the altar of one of its churches, commemorating seven martyrs hitherto unknown. The inscription dates from the fourth century.

A Table of Measures.—The inscription on a table of measures found at Djemila is published by M. ALBERTINI in C. R. Acad. Insc. 1920, pp. 315–319. The table was installed by a consular named Herodes. It is quite possible that he was acting in obedience to a decree of Valentinian, 386 B.C., directing the establishment of bronze and stone standards of weights and measures (Cod. Theod. XII, 6, 21).

DOUGGA.—A Conductor Praediorum.—In C. R. Acad. Insc. 1920, pp. 357–359, L. Poinssot calls attention to an inscription in honor of Aulus

Gabinius Datus, who is described as conductor praediorum regionis Thuggensis. This is apparently the first inscription extant to recognize the office of superintendent of imperial farm lands. Datus and his son built temples at Thugga in the reign of Hadrian (see L. Poinssot, Nouv. Archives des Missions, XXII, fasc. 16, passim.)

Two Inscriptions.—In C. R. Acad. Insc. 1920, pp. 285–288, L. Poinssor publishes two inscriptions recently discovered a few miles east of Dougga. One is a milestone, important as indicating the site of the civitas Mizigitanorum; the second is a dedicatory inscription by a pagus Assalitanus, which was a dependency of this civitas.

LAMBAESA.—Antica and Postica.—In C. R. Acad. Insc. 1920, pp. 179–184, Paul Monceaux describes a bronze plate in the form of a Greek cross, set in a limestone block which was found at Lambaesa, not far from the temple of Aesculapius. It is inscribed with the words antiqua and postiqua, the former intersecting the other at right angles, in accordance with the shape of the cross. In augury antica designated the south and postica the north, but in the transference of these terms to surveying, antica came to mean the north-south line, and postica the east-west line. Plates of this type were sometimes set in monuments as a sort of commemoration of the original survey.

MADAUROS.—Christian Victims of the Moors.—In C. R. Acad. Insc. 1920, pp. 329–333, Paul Monceaux publishes an inscription from a mensa or tombstone found at Madauros, commemorating two brothers, Theodorus, a deacon, and Faustinus, who were killed in an incursion of the Moors, late in the fourth or early in the fifth century.

## UNITED STATES

ANN ARBOR.—Egyptian School Tablets.—In Cl. Phil. XVI, 1921, pp. 189–194, A. E. R. Boak describes three tablets from Egypt, now at the University of Michigan, two of them Greek and one Coptic, dating from not earlier than the fourth century and containing school exercises in numerals and the writing of alphabets and syllables.

NEW YORK.—Accessions to the Collection of Greek Vases.—In B. Metr. Mus. XV, 1920, pp. 253–256 (2 figs.) GISELA M. A. RICHTER describes two Rhodian vases recently acquired by the Metropolitan Museum, and reports the acquisition of a typical Athenian Geometric stand, and a large "Mycenaean" vase of the Late Minoan III style, decorated with conventionalized nautili.

Etruscan Bucchero Vases.—In B. Metr. Mus. XVI, 1921, pp. 103–106 (11 figs.) Gisela M. A. Richter reports that the Metropolitan Museum has obtained thirty pieces of Etruscan bucchero pottery, illustrating many typical shapes and the usual orientalizing motives of ornament. Miss Richter remarks that the characteristic black color "was produced by the simple process of firing red clay under completely reducing conditions (that is, with insufficient air in the kiln, when the red ferric oxide of the red clay is turned into black ferrous oxide)." The effect proved suitable for vases made in imitation of metal.

A Silver Cup of the T'ang Period.—In B. Metr. Mus. XVI, 1921, pp. 111-112 (fig.) it is reported that the Metropolitan Museum has acquired a beautiful

embossed silver cup of the T'ang period, similar in style to the treasure of the Emperor Shomu, preserved in the Shosoin at Nara. The interior is decorated with conventional patterns, and with representations of birds and flowers and seated figures of sages. The ornament is in part gold-plated.

NORTHAMPTON.—A Roman Cinerary Urn.—In Bulletin of the Hillyer Art Gallery, Smith College, April, 1921, pp. 2–3 (fig.) S. N. Deane reports that the Hillyer Gallery has acquired a Roman cinerary urn with an inscription to Aulus Seius Zosimianus (C.I.L. VI, 1, 3536). This urn was for many years in the Villa Strozzi, Florence. Its ornament is characteristic of the second century.

PROVIDENCE.—Accessions to the Ostby Collection of Jewelry.—In B. R. I. Des. IX, 1921, pp. 21–22 (fig.) additions to the Ostby Memorial Collection of Jewelry in the Rhode Island School of Design are reported. They include "twelfth century Persian finger-rings, from Rhages, Syrian boat earrings," Syro-Roman ear-rings, and necklaces, Roman necklaces of the second century A. D., and a Chinese ring of the Tang dynasty."

# EARLY CHRISTIAN, BYZANTINE, MEDIAEVAL, AND RENAISSANCE

#### GENERAL AND MISCELLANEOUS

AL-FOUSTAT.—Excavations.—In C. R. Acad. Insc. 1920, pp. 243–247, A. Gabriel gives a summary account of excavations which have been made on the site of Al-Foustat, the earliest Mussulman capital of Egypt, south of Cairo, by Ali Bey Bahgat, curator of the Museum of Arabic Art. A great quantity of pottery was discovered which will constitute a unique collection of oriental ceramics for the Museum. The site is so ruined that houses are standing only to the height of one or two metres. The house-plan usually shows a grouping of rooms around a central court with a basin. Some of the more sumptuous houses have an elaborate system of terra-cotta pipes to supply the basins. The buildings were generally of two stories. The discovery of the wall built by Salah-ed-Din to unite Al Kahirat and Al Foustat shows that the latter site was already in ruins in 1175, when the wall was constructed. Its prosperous period was in the ninth and tenth centuries.

BEYROUT.—A Byzantine Relief.—In R. Arch., fifth series, XII, 1920, pp. 334 f. (fig.) Du Mesnil du Buisson tells of the discovery of a Byzantine relief (vine-scrolls and birds) in a wall south of the mosque of the street Babel-Driss, sometimes called the Mosque of Saint Saviour, not far from the great mosque, the church of Saint John. Near this, important remains of a Byzantine basilica were found during the war. Perhaps the relief came from that church.

#### ITALY

ASSISI.—Panel Paintings in S. Chiara.—In Cron. B. A. VII, 1920, p. 55, the restoration of three thirteenth century paintings in Santa Chiara at Assisi is described. One of them is the oldest known representation of Saint Clara; the subjects of the other two are the Madonna with Angels and the Crucifixion.

All three are probably by one artist, the Maestro di San Francesco or a follower. The painting of Saint Clara is dated 1284.

BERGAMO.—Jacopo Bassano.—In Dedalo, I, 1920, pp. 392-394 (fig.), G. LORENZETTI publishes a painting of the Virgin and Child with St. John in the Galleria Frizzoni-Salis at Bergamo, which he attributes to Jacopo Bassano and to the period in which he was under the strong influence of Titian and Parmigianino.

CIVIDALE.—An Embroidered Shroud.—In Dedalo, I, 1920, pp. 7-16 (6 figs.), G. FOGOLARI publishes a piece of embroidery in the church of San Pietro in Volti at Cividale, which is extraordinary for its size, preservation, and excellence of workmanship and beauty of design. It is said to have belonged to the blessed Benvenuta Bojani of Cividale, but the iconography of the design makes it impossible to date it earlier than the beginning of the fourteenth century, a little after the traditional date assigned to Boiani. The carefully worked figures and compositions of the embroidery are evidently drawn from illuminated manuscripts, of which Cividale has many fine examples.

FLORENCE.—Renaissance Furniture.—In Dedalo, I, 1920, pp. 47-52 (5 figs.), A. Lensi writes on the recent attempt to collect in the Palazzo Vecchio some pieces of sixteenth century furniture that will reconstruct, as far as possible, the original atmosphere of the rooms. The finest piece so far obtained, and at the same time one of the most precious examples of sixteenth century furniture extant, is the banco da magistrato. The master who carved the seven carvatids with which the coffer is decorated must be sought among the famous wood-carvers of Florence, such as Battista del Tasso.

Gifts to the Museo Nazionale.—In Cron. B. A. VII, 1920, p. 56, notice is given of a recent bequest to the Museo Nazionale. Florence, of a fifteenth century North Italian wooden polychrome group of the Pietà and a collection of thirty-two bronze bells, mostly of the sixteenth century and of different types.

MONSELICE.—A Limoges Enamel.—In Dedalo, I, 1920, pp. 40-46 (pl.; 2 figs.), A. Moschetti publishes a fine enamel plaque, representing the enthroned Christ surrounded by the symbols of the Evangelists, all executed in relief and interspersed with inserts of colored stones, which belongs to the cathedral of Monselice and has hitherto remained unnoted. Comparison with Limoges examples, particularly a reliquary casket of San Calmino at Mozac, proves that the enamel in question is of Limoges workmanship and belongs to the second half of the twelfth century.

PADUA.—Marco Palmezzano.—In Dedalo, I, 1920, pp. 363-368 (3 figs.), A. Moschetti adds to the fourteen already known paintings of the Christ bearing the Cross by Marco Palmezzano a painting in the Ferretto collection at Padua. The picture is of special interest because of the background, where gondolas This detail, added to the more indirect evidences of Venetian influence which have already been noted in Palmezzano, make almost certain the conclusion that at some time the artist visited Venice.

RIMINI.—Malatesta Textiles.—In Rass. d'Arte, VIII, 1921, pp. 93-100 (pl.; 7 figs.), G. Sangiorgi describes the fragments of textiles taken recently from the tomb of Sigismondo Pandolfo Malatesta in the Tempio at Rimini. The rich costume in which the lord of Rimini was buried has lost most of its splendor through decomposition of four and a half centuries, but enough remains to show the designs of the brocades and something of the general arrangement of the clothing. The finest fragment is from the trimming on the girdle, purple velvet embroidered in gold.

ROME.—Mediaeval Sculpture.—In contrast to the wealth of extant mediaeval painting in and near Rome, the poverty of sculptural remains is striking. This fact adds importance to F. Hermanin's publication in *Dedalo*, I, 1920, pp. 217–223 (pl.; 6 figs.), of several pieces of mediaeval wooden sculpture lately installed in the new Museo del Palazzo Venezia. These include a twelfth century Madonna from Acuto, which must be by the sculptor of the so-called Madonna di Costantinopoli in Santa Maria Maggiore in Alatri, though it shows further advance than the latter and still retains its ancient polychrome and incrusted decoration. A second Madonna, from Celleno and a little later in date, shows, instead of the Byzantine influence evident in the Acuto group, clear Tuscan derivation of type. More interesting than the Madonnas, perhaps, are four heads of rafters from a twelfth century house in Rome. They are similar to the Acuto Madonna in technique, but are rougher and more vigorous, with a curious character at the same time monumental and grotesque.

The Angel of Amaseno.—An unusually fine Limoges enamel of an angel recently found in the sacristy of the church of Amaseno and now in the Museo del Palazzo Venezia is published by F. Sapori in Rass. d'Arte, VIII, 1921, pp. 30–31 (pl.). It is impossible to recognize the author of the work, but its date is the end of the thirteenth century, and a close comparison to it is offered by the reliquary of Santa Barbara in the treasury of San Giovanni in Rome, though the latter is inferior in technical execution and in design.

URBINO.—Stucco Decoration.—In Rass. d'Arte, VIII, 1921, pp. 16–20 (5 figs.), L. Serra describes some ceiling reliefs lately taken from the Palazzo Corboli to the Galleria Nazionale, Urbino. They represent the best work of the sixteenth century artist F. Brandani, and are excellent examples of the continuation of the pictorial style of Ghiberti.

#### FRANCE

AIX.—A Bust of Francesco Laurana.—In L'Arte, XXIII, 1920, p. 270 (pl.), A. VENTORI publishes a bust of an unknown child in the museum of Aix, Provence, which, in its refined treatment of surface, is unsurpassed by any other works of its master, Francesco Laurana.

PARIS.—Acquisitions of the Louvre.—In Burl. Mag. XXXVII, 1920, pp. 63–70 (2 pls.), P. Jamot describes some of the most important Italian, Flemish, and Dutch paintings acquired by the Louvre during the war. They include, among others, a tondo of Love and Chastity, probably by Sodoma; Ixion deceived by Juno, one of Rubens' best mythological paintings; a portrait by Frans Hals; Farmyard on a Winter Morning, by Peter Brueghel the elder; and The Ship of Fools, by Jerome Bosch. Most of the finest of the new acquisitions came from the Schlichting collection and the gift of M. Camille Benoit. Among newly acquired examples of French art a Pietà of about 1400 is important; it comes from the same studio, perhaps the same hand, as a little Entombment in the Louvre, and both show affinity with a series of fine minatures by Jacquemart de Hesdin (Ibid. pp. 152–161; 3 pls.).

#### GERMANY

BERLIN.—A Statuette by Riccio.—In Jb. Preuss. Kunsts. XLII, 1921, pp. 1–4 (pl.; 2 figs.), W. v. Bode publishes a bronze statuette of a nymph with a vase, recently given to the Kaiser Friedrich Museum. It bears the unmistakable characteristics of the work of the sculptor Riccio and by its size, composition, and decorative accessories shows itself to be a pendant to the artist's statuette of Pan in the Ashmolean Museum. The vases which the figures hold in both cases indicate that the statuettes were intended for use on a student's table; one vase was probably to hold ink, the other sand.

A Plaque by H. G.—In Ber. Kunsts. XLII, 1921, pp. 62-66 (6 figs.) E. F. Bange describes a circular silver plaque with a design in relief by H. G., to be dated about 1570. The subject of this work, which has been recently acquired by the Berlin museums, is allegorical. Saturn conducts Truth to meet the rising sun, and a demon of Night seeks to detain her. The composition is a reproduction of a design by Francesco Marcolini da Forlí (Burl. Mag. XXIII, p. 196, pl. I). Seven other examples of this relief are known.

A Seal Design of the Sixteenth Century.—In Ber. Kunsts. XLII, 1921, pp. 66–68 (3 figs.) W. F. Volbach describes a circular lead plaque in the Berlin museums, with a representation of Judith with the head of Holofernes. The figure also typifies Fortune, since it is winged and stands on a globe. A fine plaque with the figures of Mars and Venus, and another with the figure of a warrior in archaizing armor, now in the Berlin Münzkabinett, are examples of the same master's work. The designs were intended for seals.

Two Bronzes.—In Ber. Kunsts. XLII, 1920–1921, pp. 12–14 (3 figs.) W. VON BODE reports the acquisition by the Berlin museums of two bronzes: (1) a group of Hermes and Psyche, attributed to the atelier of Adriaen de Vries, a sculptor of the school of Gian Bologna; (2) a Florentine figure of St. Thomas, formerly interpreted by Dr. von Bode as St. John the Evangelist, but now shown to be the pendant of a gilded statuette of Christ, also in Berlin. The group is to be attributed to a pupil or follower of Andrea Orcagna.

A Tapestry by Hans Baldung.—In *Ber. Kunsts.* XLII, 1920–1921, pp. 1–5 (4 figs.) H. Feuerstein and M. J. Friedländer discuss a tapestry representing the Vision of Saul, recently acquired by the Kaiser-Friedrich Museum. The coats of arms in the corners are the clue to its history and date, which can be determined as about 1540. It is attributed to Hans Baldung Grien.

A "Garden" Rug.—In Ber. Kunsts. XLII, 1921, pp. 54–59 (4 figs.) F. Save describes a rug recently acquired by the Kunstgewerbe-Museum in Berlin, and probably made in Eastern Anatolia about the end of the sixteenth century. It belongs to that type of rugs of which the design is an imitation of an oriental garden, with rectangular flower-plots, canals, and trees. There are two well-defined classes of "garden" rugs: one in which the trees, birds, and animals are somewhat naturalistic; another in which the plant and animal forms are much conventionalized. These usually show a canal running longitudinally through the design. The Berlin fragment belongs to the latter class.

## **AUSTRIA**

VIENNA.—Michael Pacher.—In Burl. Mag. XXXVIII, 1921, pp. 38–44 (pl.), G. A. Simonson publishes two recently discovered paintings by Michael

Pacher now in the National Gallery in Vienna. They represent the Marriage of the Virgin and the Flagellation of Christ, and, among the very few uncontested paintings by Pacher, they will prove of great importance in the interpretation of his style, which so successfully combines northern and southern characteristics.

Rubens.—In Z. Bild. K. XXXII, 1921, p. 18 (pl.) H. TIETZE publishes a hitherto little known portrait of Helène Fourment in private possession in Vienna. The lack of finish and necessary details in the work, and its spontaneity make it evident that this was the immediate nature study for the portrait of Helène in the family group by Rubens in the Rothschild collection, Paris.

Tapestry Exhibition.—The treasures brought to public view in the recent exhibition in Vienna of a hundred specimens of tapestry from the collection of the Hapsburg family are discussed by E. H. Buschbeck in *Burl. Mag.* XXXVII, 1920, pp. 123–130 (3 pls.). Such examples as the series representing the story of Abraham by Berneart van Orley show the independent merits of tapestry art. It is not an imitation of painting, but has quite different problems to solve.

#### GREAT BRITAIN AND IRELAND

CAMBRIDGE.—Early Italian Pictures.—In Burl. Mag. XXXVII, 1920, pp. 289–303 (4 pls.), O. Sirán publishes a few of the pictures left by the late Mr. B. Marlay to the Fitzwilliam Museum in Cambridge, which have, with few exceptions, remained quite unknown to the public up to the present time. While there are no great masterpieces in the collection, there are many well-preserved pieces, particularly of fourteenth and fifteenth century Florentine and Sienese painting, which will have much interest for students.

DUBLIN.—An Irish Shrine.—In The Antiquaries Journal, I, 1921, pp. 48–51 (pl.; 2 figs.), E. C. R. Armstrong reports that the Royal Irish Academy has acquired a portion of an Irish shrine from the collection of Sir Benjamin Chapman, Killua, County Westmeath. It is semi-circular in shape and is made of cast bronze plate, gilt in front. On the front is a conventionalized representation of a man, holding the lower jaws of two equally conventionalized animals. Below the animals on either side of the man are large discs. In the centre of each is an amber half bead, from which four arms radiate, forming a cross. The back of the shrine has a raised border with interlacing pattern, a raised cross with an amber half bead in the centre, and conventional representations of animals. A fragment which is supposed to be a part of the same shrine shows a cross ornamented with amber, and has spiral decoration between the arms of the cross. This indicates a fairly early date, and the shrine is accordingly attributed to the eighth century.

LONDON.—A Coffin-chalice and Paten.—In *The Antiquaries Journal*, I, 1921, pp. 56–57 (fig.) H. F. Westlake illustrates a pewter chalice and paten found in a stone coffin which was accidentally discovered in the north transept of Westminster Abbey in 1913. The form of the chalice, which has a broad, shallow bowl, and a round stem and base, suggest that its date is the early thirteenth century, and that the coffin was that of Abbot Richard de Berkyng, who died in 1246.

A Tondo by Luca Signorelli.—In Burl. Mag. XXXVIII, 1921, pp. 105-106 (pl.), R. FRY publishes a painting of the Holy Family with Saints which

has come recently into the possession of Messrs. Lewis and Simmons from a private collection in Ireland. On the back of the panel is inscribed the name Pietro Vanucci, but that is probably an eighteenth century addition. The characteristics of the work ascribe it clearly to Signorelli and the date must be about 1490.

An Altarpiece by Marco Zoppo.—In Burl. Mag. XXXVIII, 1921, pp. 9–10 (pl.), T. Borenius reproduces three panels, belonging to the Ashmolean Museum, the National Gallery, and Mr. Henry Harris, and representing respectively St. Paul, a Holy Bishop, and St. Peter, which he believes originally formed a part of a large altarpiece by Marco Zoppo.

A North Italian Altarpiece.—In Burl. Mag. XXXVII, 1920, pp. 95–96 (pl.), T. Borenius publishes an altarpiece representing three saints which was once in the Rinuccini collection at Florence, was for some years lost sight of, and now belongs to Lady Belper. The work figured some years ago in the dispute as to "Maestro Piero Peroxini." Though signed with the name of Perugino, Crowe and Cavalcaselle's ascription of the altarpiece to Pellegrinoda San Daniele appears most satisfactory.

A Woodcut after Pordenone.—In Burl. Mag. XXXVII, 1920, p. 61 (pl.), C. Dodgson publishes a woodcut, recently acquired by the British Museum, which is a contemporary copy of Pordenone's fresco of Marcus Curtius painted in the Casa d'Anna in Venice and praised by Vasari and Dolce. The woodcut is a beautiful one, in the chiaroscuro manner, printed in black and two shades of a pale greenish yellow.

Drawings by Aert Claesz.—Two drawings recently acquired by the British Museum are of especial interest as being more certainly attributable to Aert Claesz of Leyden (1498–1564) than any other known works. They are not only ascribed to that artist by old tradition, but their style agrees with Van Mander's description of the work of Claesz. The drawings are circular designs for glass and represent two scenes from the Passion. (C. Dodgson, Burl. Mag. XXXVIII, 1921, pp. 25–26 (pl.).

NORTH CERNEY.—A Portrait of Archduke Ernest.—In Burl. Mag. XXXVII, 1920, pp. 184–190 (pl.), A. Van de Put publishes a miniature portrait owned by Rev. E. O. de la Hey, of North Cerney, Cirencester, in which it may be possible to recognize Otto Vaenius' original from which Gisbert Vaenius made his engraving, of which there is a print in the British Museum.

OXFORD.—A Stolen Brass.—In April, 1921, a brass representing Alderman Richard Atkinson and his two wives was stolen from the church of St. Peter-in-the-East, Oxford. It is 19 inches high and 6½ inches wide and bears the date 1574. Any information in regard to it should be sent to the Oxford Architectural and Historical Association, Ashmolean Museum, Oxford.

#### UNITED STATES

BOSTON.—Recent Acquisitions of Prints.—In B. Mus. F. A., XVIII, 1920, pp. 56-62 (18 figs.), F. C(ARRINGTON) describes a number of prints acquired from the sale of the J. P. Heseltine collection. Some of the most important of these are by such artists as Girolamo Mocetto, Benedetto Montagna, Martin Schongauer, and Israel van Meckenem.

CAMBRIDGE.—A Florentine Double Portrait.—In Art in America, IX, 1921, pp. 137–148 (pl.; 4 figs.), F. M. Perkins publishes a double portrait of two standing poets, one of whom is unmistakably recognized as Dante, the other probably representing Petrarch. Painted in about 1430, this is the earliest panel picture of Dante known to be extant. Though of special interest iconographically, the artistic merit of the work is not insignificant. Ambrogio Lorenzetti was formerly believed to be its author; but since it has come into



FIGURE 4.—Bellini's Feast of the Gods: New York. (From Art in America)

the collection of the Fogg Museum in the past year it has been recognized as the production of the Florentine, Giovanni dal Ponte.

MINNEAPOLIS.—A Court Cupboard.—In B. Minn. Inst. of Arts, X, 1921, pp. 2–4 (fig.), R. H. publishes an English Elizabethan cupboard of about 1600. While some Italian characteristics are evident in the beautiful carved design, the spirit of Gothic informality about all the ornament shows the British resistance to Italian influence. A Flemish chest of the sixteenth century, another recent acquitision of the Minneapolis Institute of Art, is published Ibid. p. 20 (fig.).

NEW YORK.—A Newly Discovered Cimabue.—Of inestimable importance is the triptych of Christ, St. Peter and St. James in Mr. Hamilton's collection, New York, published by B. Berenson in *Art in America*, VIII, 1920, pp.

251–271 (6 pls.), and ascribed to Cimabue. The principal basis for the attribution is the close similarity with Cimabue's paintings in the upper church at Assisi, but it is earlier than these, perhaps the earliest known work by the master, painted as early as 1272 in Rome. The almost perfect preservation of the triptych renders it of the greatest value for the study of the technique and coloring of the panel painting of the thirteenth century in Tuscany.

Bellini's Feast of the Gods.—In Art in America, IX, 1920, pp. 3–5 (pl.), M. L. Berenson writes a short appreciation of the masterpiece by Giovanni Bellini recently acquired by Mr. C. W. Hamilton, New York (Fig. 4). The authenticity of the painting is beyond any question and it bears in Bellini's own handwriting his signature and the date 1508. The background is clearly Titian's but the figures are Bellini's.

Two Sienese Paintings.—In B. Metr. Mus. XVI, 1921, pp. 28–29 (fig.), B. Burroughs publishes two Sienese paintings added to the collection of the Metropolitan Museum. The earlier of the two, a painting of the Madonna, with a predella containing the Annunciation and the Nativity, is by a fourteenth century follower of Duccio. The second painting is a fragment of a decoration of a marriage chest by Francesco di Giorgio.

A Sienese Statue.—A terra-cotta statuette of a bearded saint, attributed to Lorenzo di Petro, called Il Vecchietta, has been acquired by the Metropolitan Museum and is briefly described by J. B(RECK) in B. Metr. Mus. XVI, 1921, pp. 14–15 (fig.).

A Pagan Painting by Rubens.—In Art in America, VIII, 1920, pp. 293–297 (pl.), H. B. Wehle publishes Rubens' painting of Venus and Adonis now lent to the Metropolitan Museum by Mr. H. P. Bingham. The work presents the rich opulence and free creative genius that characterize the middle period of Rubens' activity. According to Rooses, it was painted about 1620.

Italian Laces.—A brief description of the most interesting of the early Italian laces lately acquired by the Metropolitan Museum of Art from the Ida Schiff collection is published by F. M. in B. Metr. Mus. XVI, 1921, pp. 29–32 (2 figs.). Beautiful altar cloths of the sixteenth century, quaint fascias such as those one sees represented on the babes in della Robbia's frieze of the Spedale degli Innocenti in Florence, and bobbin laces worked from designs that originated in well-known sixteenth century pattern books are among the treasures of the collection.

**PROVIDENCE.**—Andrea di Giovanni.—A panel picture of the Madonna and Child recently acquired by the Rhode Island School of Design is published by R. v. Marle in *Art in America*, IX, 1921, pp. 102–106 (3 figs.). The work is to be attributed to Andrea di Giovanni, as is shown by a comparison with that artist's paintings at Orvieto. The Sienese quality of it is explained by the fact, already pointed out, that painting at Orvieto was dominated at this time by the artistic tradition of Simone Martini.

El Greco.—In B. R. I. Sch. Des. VIII, 1920, pp. 26–27 (fig.), L. E. R(OWE) publishes a painting of St. Andrew by El Greco, recently acquired by the Rhode Island School of Design. The work belongs to the artist's last period, when he became less eccentric and more like other painters, while still retaining his power and his mastery of technique.

WORCESTER.—A Fourteenth Century Madonna and Child,—In B. Worc. Mus. XI, 1920, pp. 26-29 (2 pls.), R. W. publishes an attractive Madonna and

Child, in Worcester. They are French sculpture of the fourteenth century, and a good example of the breaking away from the severity and simplicity of earlier art and the substitution of intimacy and grace.

Painted Glass.—In B. Worc. Mus. XI, 1921, pp. 79–83 (3 figs.), E. I. S. uses pieces of English and Flemish glass recently acquired by the Worcester museum to illustrate the development through which glass work went from the twelfth century to the eighteenth, and the varying relationships between glazier and painter which this development involved.

A Late Gothic Panel—In B. Worc. Mus. XI, 1921, pp. 74–76 (pl.), R. W. publishes a late Italian Gothic panel of the Madonna and Child owned by the Worcester museum. The work belongs to the early years of the fifteenth century but still retains, in the softening of its contours, much of the archaic spirit. Perhaps it is to be attributed to Ambrogio di Baldese, who is represented by a triptych in the Jarvis collection at Yale.

A Fifteenth Century Spanish Painting.—A Spanish painting of the Madonna with Saint and Donor, which shows both Sienese and Flemish influence, has been acquired by the Worcester museum and is published by R. W. in B. Worc, Mus. XI, 1921, pp. 66-68 (pl.).

Ottaviano Nelli.—In Art in America, IX, 1920, pp. 21-24 (fig.), U. GNOLI and R. Offner write on a panel painting of the Adoration of the Magi in the Museum of Art at Worcester, which they ascribe to Ottaviano Nelli and date in the early years of the fifteenth century.

Antonio da Viterbo.—An adoration of the Child Jesus in the Museum of Art, Worcester, is attributed by U. GNOLI in Art in America, IX, 1920, p. 24 (fig.), to Antonio da Viterbo. From the close similarity it shows with the style of Pinturicchio, one may conclude that it was executed after the collaboration of Antonio with that master in Orvieto and in the Borgia Apartment of the Vatican, and, therefore, probably about 1500, when the artist returned to his native town.

A Flemish Portrait.—In B. Worc. Mus., XI, 1921, pp. 71–72 (pl.), E. I. S. publishes a painting in the Worcester museum which some have thought to be a portrait of Eleanor of Portugal. The work is too late for such an identification, belonging to the early sixteenth century, and it may have been done by the "Master of the Half Figure."

Archaeological Institute of America

# AN ASKOS BY MACRON

THANKS to a series of gifts from Mr. Edward Warren, the Museum of Bowdoin College possesses a small but choice collection of Greek vases. Most of these have been described in the annual reports of the College, and many of the red-figured pieces find a place in my Vases in America.<sup>1</sup> One of the more recent



FIGURE 1.—Askos at Bowdoin College.

acquisitions is the singularly attractive little vase reproduced in Figures 1-3. It measures 6.2 centimetres in height, and 8.2 in diameter. It was bought from a Greek, but the provenience is unknown. My thanks are due to Mr. Warren for allowing me to study the vase while it was still in his possession.

The shape is that which modern scholars have agreed to call an askos; what the ancients called the shape we do not know. The askos has a long history: vases constructed on the same general principle as ours are common in Greek lands, and in lands affected by Greek civilization, from a very early period to a very

<sup>1</sup> V.A. p. 206. In Hoppin's Handbook of Red-figured Vases, I, p. 370, No. 12a-b, the Bowdoin fragment by the Euergides painter (No. 50 in my list of his works, J.H.S. XXXIII, p. 354) is incorrectly combined with the fragment in Brunswick (Germany), *ibid*. p. 352, No. 31.

late.¹ The ascoid shape suggested an animal, a bird, and the potter was often tempted to add a short tail and a dove's or a duck's head. This temptation was resisted by the inventors of the type of askos which is figured by Lau and by Genick among their illustrations of Greek vase-forms²: the constructional motive is not mimetic here, but aesthetic: the lines of the design are wonderfully simple, bold and harmonious.

Askoi of the type figured by Lau and Genick become common in Attic pottery of the transitional period between the archaic style and the free, and persist till late in the fourth century. It is to this type, far the commonest, that the Bowdoin vase belongs: it differs somewhat from the canonical shape by its slightly narrower foot and slightly higher breast.<sup>3</sup>

The Bowdoin vase is earlier than any of the askoi which exhibit the canonical shape, for it is clearly of the ripe archaic period, between 490 and 480 B.C. The earliest canonical askos is E273 in the British Museum, and that is distinctly later than ours. The Bowdoin vase forms a link between the canonical askos and a much earlier specimen—the vase in Orleans published by Mrs.

- <sup>1</sup> Mayer, Askoi, in Jb. Arch. I. XXII, pp. 207–235; Myres, Cesnola Collection, pp. 15–16. Mayer pays little attention to the Attic askoi, and Myres is not concerned with them.
- <sup>2</sup> Lau, Die griechischen Vasen, pl. 24, 4: Genick, Griechische Keramik, pl. 32, 4. Summary representations in Furtwängler, Vasensammlung im Antiquarium, pl. 6, No. 242, and Cecil Smith, Catalogue of Vases in the British Museum, III, p. 17, fig. 16=Walters, Ancient Pottery, I, p. 200, fig. 62.
- <sup>3</sup> The following forms of askos are used by Attic potters of the red-figured period: (1) Our type. (2) Like 1, but the middle of the upper surface moulded in imitation of a lid (see No. 7). Examples: Cairo 26214 (Edgar, Greek Vases, pl. 12); Naples (Gabrici, Mon. Ant. XXII, pl. 104, 5); B.M. F34, F120 and 1867.5-12.46. All fourth century. (3) Like 1, but the body tubular: Naples, Santangelo 226 (Heydemann, Vasensammlung in Neapel, pl. 3, 178). In Oxford 331, a trefoil (oenochoe) spout is substituted for the ordinary one. (4) A taller type, the top flattened, a small cylindrical passage is usually sunk through the body vertically: Furtwängler, Vasensammlung, pl. 16, No. 236; B.M. T511. (5) Like 4, but no passage, and two spouts, one of the usual kind, the other trefoil-shaped: Cat. Coll. Dr. B. et M. C. pl. 24, No. 184. (6) Shape as 1, but the handle, instead of being overarching, is a ring set vertically at the side of the vase: B.M. E766. (7) Like 6, but a circular filling-hole in the upper surface, generally with a sieve bottom: Cab. Méd. 859 (De Ridder, pl. 24); Morin-Jean, Le dessin des animaux en Grèce, p. 128; B.M. F33 and E763. The hole could no doubt be furnished with a lid, which explains 2. (8) Like 7, but the spout shaped as a lion's head. Cat. vent. 11-14 mai 1903, p. 55 (No. 164); Sammlung Vogell, pl. 3, 23; Morin-Jean, op. cit. p. 184; B.M. E74. (9) Vases in the shape of a crab's claw: B.M. 1905.7-10.9 (Gargiulo, Recueil, 4, pl.

Massoul and rightly assigned by her to an Ionian fabric.¹ The Orleans vase, from the style of the heads which adorn it, can hardly be later than the middle of the sixth century. The shape is heavier, less athletic, than in the Bowdoin askos, but the later shape is obviously derived from the earlier. The lineage of this class of askos can be traced farther back. Vases like the Orleans askos must be descended from an earlier and larger type of vase, an example of which has been found at Naucratis.² The askos from Naucratis, which is decorated with bands of animals in the style characteristic of eastern Greece—Rhodes and Asia Minor—and cannot be later than the earlier part of the seventh century, evidently goes back, in its turn, to the late Mycenaean type represented by a vase from Haliki near Phaleron.³

One of the principal characteristics of the Attic type figured by Lau and Genick is the grand, free span of the handle: in the Orleans vase the handle is smaller in proportion to the body; in the vase from Naucratis and Haliki it is smaller still, and it runs from the neck, not to the farther end, but to the middle of the back. The Attic type makes one think of some bold Gothic arch, compared with the hesitating experiments of earlier builders. The full-spanned handle is found, it is true, in earlier ascoid vases, but chiefly where the body is tubular.<sup>4</sup>

<sup>23;</sup> Burlington Catalogue 1903, pl. 97, I 68); B.M. E765 (Panofka, Cabinet Pourtalès, pl. 30); B.M. WT63. (10) Vases in the shape of a duck, with black-figured ornamentation; not earlier than the later part of the fifth century: Farmakovski, Arch. Anz. 1909, p. 175, fig. 40, from Olbia; Orsi, Not. Scav. 1913, supplement, p. 8, fig. 6, from Locri; B.M. B662-667. In the British Museum Catalogue (II, pp. 295-6) this group is included among the vases with designs on a white ground; the ground, however, is the red of the clay; white is sometimes used on the head of the duck. The spout of B662 is shaped like the mouth of a squat lecythus; B663 has a trefoil (oenochoe) spout; B664 and 665 an askos spout; in B666 and B667 an askos spout is substituted for the duck's head, the spout thus being at the head and not as in the others at the tail of the duck. (11) Black vases in the shape of a knuckle-bone, with overarching handle twisted and knotted.

<sup>&</sup>lt;sup>1</sup> Massoul, Revue archéologique, 1918, 2, p. 19: height 8 cm., diameter 9 cm. Of somewhat similar shape are the sixth century Ionian askoi from Olbia, Farmakovski, Arch. Anz. 1911, p. 223, fig. 29, and 1912, p. 358, fig. 47.

<sup>&</sup>lt;sup>2</sup> B.M. 1888.6-1.462: *Naukratis*, 2, pl. 5, 1. The lip, and most of the handle are modern; the remains of the handle show that it is correctly restored.

<sup>&</sup>lt;sup>3</sup> Berlin 43, Furtwängler-Loeschcke, *Mykenische Vasen*, pl. 18, 127. Height 13 cm. A remoter ancestor is the pre-Mycenaean type illustrated by Wace and Blegen, *B.S.A.* XXII, pl. 6, 1.

<sup>&</sup>lt;sup>4</sup> Delphi, Fouilles de Delphes, 5, p. 11, fig. 39 (sub-Mycenaean); Berlin 304, Boehlau, Jb. Arch. I. III, p. 341, fig. 22 (Boeotian geometric); Louvre A47, Pot-

The Orleans vase belongs to about the middle of the sixth century, the Bowdoin vase to the second decade of the fifth. It is natural to ask whether there are any vases which come between the two.

I do not know of any red-figured askoi which are certainly earlier than the Bowdoin vase.<sup>1</sup> A black-figured Attic askos, of the same general type, is mentioned by Furtwängler in his catalogue of the Berlin collection<sup>2</sup>: it is a late black-figured vase, but



FIGURE 2.—ASKOS AT BOWDOIN COLLEGE: SIDE A.

how late I cannot tell, for I have not seen it. It may be no earlier than the Bowdoin vase.

I am unable, therefore, to point to any intermediaries linking the Bowdoin askos with the askoi of the same period as the vase in Orleans. But it may well be, indeed it is extremely likely, that askoi of the Orleans and Bowdoin type were made in Attica long before the year 490; although they need not have been decorated

tier, Album, pl. 6 (Cypriot); B.M. C309, Walters, B.M. Cat. I, 2, p. 58, and C310 (Cypriot); Louvre D114, Pottier, Album, pl. 32 ("Italo-Corinthian"); see also the type Furtwängler-Thiersch, Aegina, I, p. 436 and pls. 121,40, and 124,5; Naukratis, 3, pl. 16, 19; Orsi, Mon. Ant. XVII, p. 106, fig. 69; p. 114, fig. 80; and p. 211, fig. 166 (one of these found with a Corinthian vase). See also Johansen, Sikyoniske Vaser, pp. 34–35.

<sup>1</sup> The askos Boston 13.169, by the Tyszkiewicz painter (V.A. p. 55) is of the same period as ours, and may be a little earlier. Unfortunately it is a fragment; the picture is preserved, but spout, handle and lower part are missing. The picture extends over the whole upper surface of the vase, as in B.M. E766 (see note 4. No. 6).

<sup>2</sup> Vasensammlung im Antiquarium, No. 2107; "shape No. 242, but the handle lower." The following vases I cannot date precisely, but they may belong to the late sixth century: Orsi, Mon. Ant. IX, p. 250, fig. 40; Gabrici, Mon. Ant. XXII, pl. 69, 2, found with a late b.f. Attic lecythus; Orsi, Röm. Mitt. XIII, p. 331, fig. 41.

with figures, either in the black-figured or in the red-figured style. An analogy may be found in the history of another shape, the bell-crater. The earliest red-figured bell-craters, as I have observed elsewhere, are four vases decorated by the Berlin painter and datable between 490 and 480 B.C.: there are no black-figured examples. But we find representations of bell-craters well before 490, for instance, in the cups of the Euergides painter, which belong to the later part of the sixth century. The bell-



FIGURE 3.—ASKOS AT BOWDOIN COLLEGE: SIDE B.

crater existed before the Berlin painter; only, it was not one of the shapes which the vase painters chose to decorate; it was a rough, homely vessel of coarse, perhaps unvarnished clay. A day came when a maker of fine vases cast his eye upon it; the designer refined its shape; the painter glorified it with his art; and it took its place as a favorite with potter and with customer.<sup>2</sup>

The regular decoration of the Attic askoi is a single figure placed on either side of the vase, so that the two figures are separated by the overarching handle and the blank area below it. The most natural decoration of the segment was a figure broader than high; a human figure flying, creeping, seated, reclining; or the figure of an animal. Most of the askoi are decorated with such subjects. Upright human figures are rare.<sup>3</sup> One or two askoi bear a couple of human heads <sup>4</sup>—the same form of decoration as was used by the Ionian painter on the vase in Orleans.

<sup>&</sup>lt;sup>1</sup> J.H.S. XXXI, p. 283; V.A. p. 114.

<sup>&</sup>lt;sup>2</sup> The same homely sort of vessel is at the back of a seventh-century Attic vase in Munich (1351: Hackl, *Jb. Arch. I.* XXII, pl. 1 and pp. 79–80). But the early makers of fine pottery did not retain the shape.

<sup>&</sup>lt;sup>3</sup> Naples 3201 (late fifth century).

<sup>&</sup>lt;sup>4</sup>B.M. E761; Oxford 328; B.M. E760. Cf. also B.M. F34 and F120, and Cairo 26214.

The decoration of the Bowdoin askos consists of two figures of Eros, one on each side of the vase, with an inscription. On one side Eros is flying to the left with a tendril in his left hand and a flower in his right (Fig. 2); on the other side, a second Eros flies to meet the first, his arms extended with the hands open, as if to greet his brother or to take the flower (Fig. 3). The first Eros I shall call A, the second B. Relief-lines are used for the contour of the figures, with the usual exception of the hair, and for the main inner markings; the secondary inner markings are rendered in brown. Red is used for the wreath of A and for his flower, white for the tendril, for B's wreath and for the inscription:



FIGURE 4.—FIGURES OF EROS: ASKOS AT BOWDOIN COLLEGE.

HOFAIS on one side, KA > OS on the other. A fracture has removed B's toes and part of his calves. The brown lines on A's thigh and on the lower part of B's legs are difficult to make out, for here the surface of the vase has been chafed. The black of the background has encroached upon the outline of B's left hand; the original relief-lines are still visible, and are given in the drawing (Fig. 4).

The vase is not signed, but the style of the figures speaks a clear language. The painter of the vase was Macron, the artist whose name is preserved on a magnificent cotyle in Boston, and who

<sup>1</sup> F.R. pl. 85: Hoppin, *Handbook*, II, pl. 53. A list of Macron's vases is given in *V.A.* pp. 102–106. The following additions are to be made: a cup with the signature of Hieron, recently acquired by New York (interior, silen and maenad; exterior, symposion); a cup in the Villa Giulia (3575: interior, man with cuttle-fish; exterior, silens and maenads); another in the same collection (interior, youth with flower: exterior, males); fragments of three cups in Florence (exterior, komos; exterior, head of Dionysus; exterior, silens); and a rough column-crater in Capt. Spencer Churchill's collection at Northwick Park (A. Arming; B. Heracles and Alcyoneus).

No. 52 in my list is now in Leipsic, as Dr. Langlotz kindly informs me; No. 83

painted most of the vases bearing the signature of the manufacturer Hieron, besides a great many which bear no signature at all. We need not be surprised to find a painter of big vases decorating a tiny pot like this: the painter of the François vase set his name to a cup which has no other decoration beyond a design of four little fishes, exquisitely grouped, two pairs of palmettes, and two signatures.<sup>1</sup>

The style of Macron is pretty well known: in the Bowdoin vase, I would draw particular attention to the flat skulls, the features of A's face and his right hand, the ankles, the pair of brown lines on each breast, and the brown line at the lower edge of the shoulder; of the tendril and the wings I shall say something later.

Erotes by Macron. The mind turns to one of the artist's masterpieces, the splendid Judgment of Paris which he painted for Hieron,<sup>2</sup> where the third of the rival goddesses, Aphrodite,

is published in *Not. Scav.* 1895, p. 304, fig. 17. Nos. 22, 36, 59, 63 and 65 are published, for the first time, in Hoppin's *Handbook*. Good photographs of Nos. 44 and 71 have now been issued by Alinari (35797–35799, and 35806–35808).

The following cups belong to the school of Macron; some of them link him with the Telephus painter, who also worked for Hieron:—Villa Giulia (interior, youth leaning on stick; exterior, woman and males); Florence 81602 (interior, young komast; exterior, women and youths); B.M. E66 (F.R. pl. 47, 2, and 1, p. 264); Cab. Méd. 812 (De Ridder, pls. 21-22 and p. 471); Orvieto, Faina, 105 (A.Z. 1877, pl. 6); Florence 4219 (interior, Eros; exterior, only feet remain); B.M. E80 (Cecil Smith, B.M. Cat., pl. 5); Bonn (interior, Winter, Die jüngeren Attischen Vasen, p. 7); Louvre G384 (interior, athlete with acontion; exterior, athletes); Louvre G477, fragment (A. woman with box; B. women); Louvre G389, fragment (exterior, youth between man and youth); Petrograd 668 (Gargiulo, Recueil (1861), 5, pls. 10-11); Boston, fragment (see V.A. p. 109); Munich 2652 (interior, silen fluting; exterior, silens and maenads); Orvieto, Faina, 169 (interior, man in himation; exterior, komos); New York, GR 568 (see V.A. p. 109); Cat. Méd. 813 (Caylus, Recueil, 2 pl. 37). The five last vases may well be by the Telephus painter. A list of the Telephus painter's works is given in V.A. pp. 107-109, and is to be increased by the following cups: Naples 2608; Florence, from Chiusi (interior, silen; exterior, komos); formerly in private possession at Athens (detail, Heydemann, Griechische Vasenbilder, pl. 10, 2); B.M. 1910, 3-7, 10, fragment (interior, head of athlete); Florence, fragment (youth with halteres); and a fragment from south Russia (*Izvêstiya*, XIII, p. 182).

I take this opportunity of adding two numbers to my list of vases by the Briseis painter, who follows the Telephus painter in *Vases in America:* the Nolan amphora in Naples, 3198 (A. woman with phiale and oenochoe; B. old man), and the column-crater in Naples, R.C. 146 (Fiorelli, pl. 15; *Bull. Nap.*, new series, V, pl. 10, No. 19).

<sup>&</sup>lt;sup>1</sup> G. and A. Körte, Gordion, pl. 7 and p. 141.

<sup>&</sup>lt;sup>2</sup> Berlin 2291: W.V. A, pl. 5; Hoppin, Handbook, II, p. 43.

veiled and holding a dove and a flower, is surrounded by a bevy of Erotes, who hover about her with flowers, chaplets and necklaces in their hands (Fig. 5). In the Bowdoin vase, the chests of the figures are nearly frontal, but the other parts of their bodies are in almost pure profile: the two Erotes are flying to meet each other, straight to right and straight to left. In the Berlin vase, the artist has set himself a more complex task; he is clearly concerned to make the Erotes look as if they were flying round their



FIGURE 5.—DETAIL OF CUP WITH SIGNATURE OF HIERON: BERLIN.

mistress; he is trying to suggest the third dimension and to give the group a certain measure of depth. The heads are in profile, turned towards Aphrodite; but three of the Erotes have one leg frontal and the other bent behind it; they are to be thought of as moving towards the spectator. Aphrodite is ringed round by a zone of attendant loves.

The attitude of the fair-haired Eros on the signed cotyle in Boston,<sup>1</sup> as he flies along beside the beauteous Helen and busies himself with her hair, is not quite the same as any in the Bowdoin or Berlin vases (Fig. 6). As Helen steps leftward, Eros flies past her in the same direction and turns round towards her forehead;

<sup>&</sup>lt;sup>1</sup> F.R. pl. 85: Hoppin, Handbook, II, p. 53.

his feet are not seen, but one leg is in three-quarter profile and the other crosses behind it. The movement is obliquely towards the spectator.

Both in the Berlin cup and in the Boston cotyle, one notices the same curious way of attaching the wings to the body as in Eros B on the Bowdoin askos. The right wing of B is attached to the front of his shoulder, covering it, instead of to his back. This is an old rendering 1 which Macron preserves, not always,



FIGURE 6.—DETAIL OF COTYLE SIGNED BY MACRON: BOSTON.

but in figures where the arm passes across the hither side of the body.

That Eros should carry a flower in his hand is intelligible enough. Long before the appearance of any figures which can be given the name of Eros, winged spirits bearing flowers or tendrils were familiar to the Greeks.<sup>2</sup> When Eros himself comes to be represented by Greek artists, in the latter half of the sixth century,<sup>3</sup> they gave him the same attribute which had been borne by his nameless predecessors. Not thoughtlessly: it may even be that they had in mind the further meaning of the word anthos; their Eros is in a double sense  $\pi a \hat{\imath} s \kappa a \lambda \hat{o} \nu \ a \nu \theta o s \epsilon \chi \omega \nu$ .<sup>4</sup>

<sup>&</sup>lt;sup>1</sup> E.g., Murray, Designs, No. 10.

<sup>&</sup>lt;sup>2</sup> Clay relief from the Argive Heraeum, Argive Heraion II, pl. 49, 1; Etruscan bronze plaque from Montecalvario, Not. Scav. 1905, p. 236.

<sup>&</sup>lt;sup>3</sup> Lewes House Collection of Ancient Gems, pp. 27 and 28.

<sup>&</sup>lt;sup>4</sup> Theognis, 994.

The man who conceived the Laus Helenae on the Boston cotyle—and there is no reason whatever to suppose that Macron did not conceive and design the picture as well as execute it—had an endlessly subtle and lofty imagination. But that Macron had any subtle thought in his head when he placed a flower in the hand of his Eros is naturally more than we can affirm. His fathers before him had given Eros a flower: and Macron himself was freer with his flowers than most of his fellows.

The flower which the Bowdoin Eros holds, hardly visible, I fear, in the illustrations, is of Macron's favorite species: broken from such a tendril as Eros holds in his other hand. The tendril I take to be a kind of smilax. Tendrils like this are not uncommon in his pictures: Hera holds one in his Berlin Judgment of Paris: Athena also, and Euopis on the other side of the vase: the bearded lover, too, on the unsigned plate in Copenhagen; and one of the ladies on the pyxis, from the Acropolis, in Athens, which is not only from the hand of Macron, but probably bears his signature as well.<sup>3</sup> On a Hieron cup in London a woman is twining a wreath of smilax. Smilax wreaths are often worn in the red-figured vases of the earlier archaic period; there are splendid specimens in the works of Phintias and Euthymides:5 but in the ripe archaic period they become very rare, and in the free period there may be a few, but I remember none. The use of smilax, therefore, for garlands would seem to have died out about the beginning of the fifth century. I think this is why the poet Aristophanes mentions smilax in his picture of what the young Athenian was once and ought to be:6 the poet knew that smilax had been dearly loved in the good old days; he had seen it in pictures painted at the time when the men of Marathon were

<sup>&</sup>lt;sup>1</sup> Hoppin figures 23 vases by Macron; on 14 of these there are persons with flowers in their hands (Hoppin's numbers 4, 5, 9, 12, 13, 16–18, 20–22, 26, 28, 29); often several on one vase. Of the other vases, I need only mention the cups in the Cabinet des Médailles (560; De Ridder, p. 421, fig. 103) and in Madrid (154; Leroux, pl. 18). The flowers are not confined to scenes between men and boys or men and women; Hermes offers Paris a flower (Hoppin, No. 4); men put flowers to their noses even when there are no boys or women present (Hoppin, No. 26).

<sup>&</sup>lt;sup>2</sup> Hartwig, Meisterschalen, pl. 30, 1; not a cylix, as Hoppin calls it (Handbook, II, p. 98, No. 55).

<sup>&</sup>lt;sup>3</sup> Richards, J.H.S. 14, pl. 3, 2.

<sup>&</sup>lt;sup>4</sup> B.M. E61: W.V. C pl. 5; Hoppin, Handbook, II, p. 59.

<sup>&</sup>lt;sup>5</sup> F.R.H. pl. 112: F.R. pl. 33.

<sup>&</sup>lt;sup>6</sup> Clouds, 1007.

striplings; he associated it with the  $\tau\epsilon\tau\tau\iota\gamma o\phi\delta\rho\alpha\iota$ ,  $d\rho\chi\alpha\iota\omega$   $\sigma\chi\dot{\eta}\mu\alpha\tau\iota$   $\lambda\alpha\mu\pi\rhoo\iota$ .

The face of Eros B is somewhat odd at first sight. Eros A has comely features of regular archaic type: B's face does not conform to any type of classical beauty, archaic or other. Yet I do not think that the painter's hand has gone astray; he meant to make one of his Erotes look comical. He had noticed what surprising faces some young children have, before the bones of the nose are



FIGURE 7.—DETAIL OF ARYBALLOS IN LOUVRE.

grown, when the upper lip seems to have got a long start of its handicapped competitor. Poulbot has drawn many such faces.

Parallel studies of elderly faces are common enough in the riper archaic and in the succeeding, transitional period: for instance, in the works of the Panaitios painter or the Sotadean vases. Child studies are less common: the closest analogy to the Bowdoin Eros is the priceless little lad on another vase of the same period, the cotyle by the Brygos painter in Boston.<sup>2</sup> Ten or fifteen years later, in the Sotadean period and circle, we have the Eros,

<sup>&</sup>lt;sup>1</sup> Knights, 1331.

<sup>&</sup>lt;sup>2</sup> Caskey, A.J.A. 1915, pls. 7–8 and pp. 130–134; the boy only, V.A. p. 90, fig. 58.

in the shape of a little lout, on the New York pyxis with the Judgment of Paris.<sup>1</sup> In the Bowdoin Eros, the characterization is confined to the face. In the New York Eros it extends to the body; comical though he be, he already makes one think of the earliest real child in Greek sculpture, the grave and lovely maiden of the relief in Brocklesby House.<sup>2</sup>

To conclude: it is worth while comparing the Bowdoin Erotes with another pair on a small vase of a slightly later period. At a hasty glance Figure 7 would seem to be taken from an askos; but it really represents the decoration on the shoulder of the round aryballos, with a picture of a clinic, which was formerly in Mr. Peytel's collection and has recently been presented by him to the Louvre.<sup>3</sup> It is the work of a follower and imitator of Macron. The style is based on that of Macron, but the artist is trying to be livelier and more forcible; the modelling of the bodies is more muscular, and the movements more restless. It will be noticed that although both hither arms cross athwart the body, the artist does not follow Macron in clapping the hither wing to the front of the shoulder; the consequence is that with the more realistic bodies the wings look even less like real wings than Macron's, and more like those of pantomime fairies.

J. D. BEAZLEY.

CHRIST CHURCH, OXFORD.

<sup>1</sup> Richter, A.J.A. 1915, pls. 29–30; V.A. p. 128.

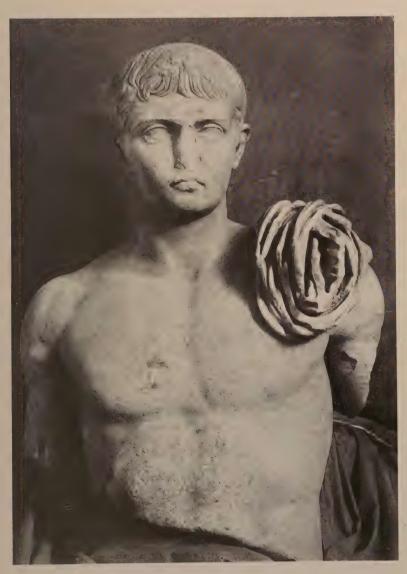
<sup>2</sup> Ant. Denk. I, pl. 54: Curtius, Das griechische Grabrelief, pl. 6; see also Curtius, Ath. Mitt. XXXI, pl. 6 and pp. 178–184.

<sup>3</sup> Pottier, Mon. Piot. XIII, pls. 13–14. Of similar style, the cups B.M. E66 (F.R. pl. 47, 2); Cabinet des Médailles 812 (De Ridder, pls. 21–22 and p. 471); and Orvieto, Faina, 105 (A.Z. 1877, pl. 6). Pottier compares the Peytel vase with the aryballos, Berlin 2326 (A.Z. 1888, pl. 8) which is also of the school of Macron. Pottier gives a list of vases of the same shape, or nearly the same, as the Peytel aryballos (Mon. Piot. XIII, pp. 162–165); see also V.A. pp. 87–88. The oldest of them is the vase which was formerly in Bologna (Pellegrini, V.P.U. pp. 56–57, No. 322); Pottier is inclined to connect it with Douris (loc. cit. p. 163), but it is obviously far earlier than even the earliest works of Douris; Pellegrini (op. cit. p. 56) is nearer the mark when he compares it with a cup in Munich (Jb. Arch. I. X, pl. 4); but there is no reason to associate either cup or aryballos with "Andocides." I owe my thanks to M. Pottier for allowing me to reproduce the Peytel Erotes.

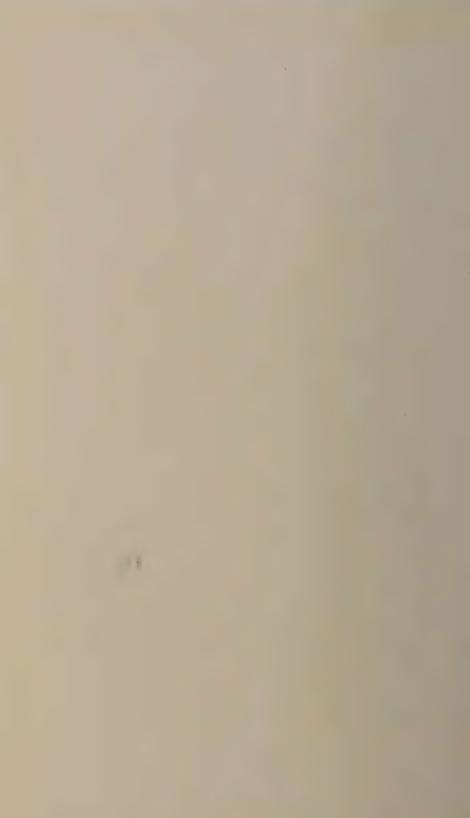


PORTRAIT STATUE OF GAIUS CAESAR: CORINTH.





PORTRAIT OF LUCIUS CAESAR: CORINTH.



## A GROUP OF ROMAN IMPERIAL PORTRAITS AT CORINTH

## III. Gaius and Lucius Caesar (Plates X-XI)

WE have seen that the two members of the Corinthian group already discussed, i.e., the Augustus and the Tiberius 1 are in all probability to be considered as companion pieces, inasmuch as they are both represented under the guise of priest or pontifex. Of the two works to which we now turn our attention this holds true to an even greater degree. In fact they are so closely bound together through affinity of subject, type, scale, technique, etc., that it seems to me essential that they be here treated beneath a single heading, a conclusion amply justified, I think, by a glance at Plates X and XI. That the youths represented by these portraits are blood relations, probably brothers, is self-evident; that they are also members of the family of Augustus seems equally assured by their remarkable resemblance in feature to the Augustan type. In fact this similarity is so striking that the better preserved of the two portraits (Plate X), which was also the first member of the group to come to light, was immediately upon its discovery dubbed "the young Augustus."—an attribution which we did not seriously question until after the unearthing of the genuine Augustus at a considerably later period of the campaign. For convenience of reference, therefore, it seems to me advisable to anticipate somewhat the argument expounded in the following pages, in so far, at least, as to indicate my belief that the portraits before us represent respectively Gaius and Lucius Caesar, the grandsons of Augustus. The more complete of the two works, as representing the elder of the pair, I shall designate Gaius, the other, of which the bust only is preserved. Lucius.

As was the case with respect to those members of the group already discussed, the Gaius and Lucius were both discovered

<sup>&</sup>lt;sup>1</sup> Cf. the first two articles of the present series, A.J.A. XXV, 1921, pp. 142–159 and 248–265.

within the limits of the Roman basilica so often mentioned, the former just within the long southeast wall of the building (cf. A.J.A. XXV, 1921, p. 143, fig. 1), the latter nearly opposite, but six or eight meters farther west.

The Gaius was found lying apparently undisturbed and just as it had fallen, directly beneath the same stratum of broken Roman tile, fragments of marble revetment, and miscellaneous débris in which, it will be remembered, the statue of Augustus was discovered (cf. article on the Augustus, A.J.A. XXV, 1921, p. 144). The figure rested flat upon its back in a nearly horizontal position and seems to have settled gently downward through the rotting planks of the flooring of the upper story, without suffering any damage other than that incident to the fall from its original basis. To this first overthrow, which may or may not have taken place prior to the general ruin of the building, are, perhaps, due the few injuries sustained,—e.q., the breaking of the right arm, which was found in situ beside the body, and the loss of the nose and the left forearm. The stratum of Roman tile, etc., which overlaid the statue was at this point rather thinly spread, while directly above it succeeded the usual accumulation of early Byzantine strata. Over the head and torso of the figure passed a rough wall of the post-classical period; its base, grounded in the stratum of broken tile, was formed of several huge architrave blocks, marble, and of the Ionic order. These seem to have originated from some unknown building farther up the slope. The statue itself rested at a depth of between four and five meters.

The portrait bust which I have designated as Lucius Caesar came to light at a considerably lower level, rather more than five meters beneath the surface and only a meter above hardpan. Nevertheless it had not enjoyed the undisturbed repose of its kindred portrait, but had clearly been tampered with subsequent to its fall. It was found lying on its back in a fairly thick stratum of late Roman débris which appeared to have been worked over in Byzantine times for the sake of the marble or other valuables it might have contained. The statue must have toppled from its pedestal and been more or less shattered when the basilica fell to ruin, at which time also the legs and lower part of the torso were lost, being in all probability hacked up and burnt for lime. The upper part of the torso, however, massive and not easily breakable, was mutilated and battered, after which it was apparently dragged to one side and rolled into a shallow trench in that portion

of the débris which had already been plundered. Subsequently it was covered over and forgotten.

The statue of Gaius Caesar, though considerably over life size, is yet on a slightly smaller scale than the Augustus, the difference in height between the two—assuming the restoration of the feet of

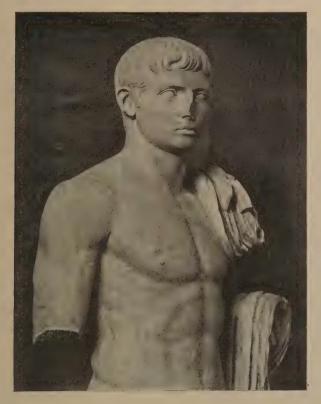


FIGURE 1.—GAIUS CAESAR: CORINTH.

the latter—being not less than .25 m.¹ The figure is preserved to its full height, the entire composition, save only the left arm, having been cut from a solid block of marble; this forearm, as is evident from Plate X, was worked separately and attached by

Dimensions are: height 1.98 m., height with plinth 2.07 m., length of right leg .995 m., from plinth to navel 1.195 m., from navel to chin .52 m., length of neck, front, .095 m., length of face .185 m., width of face .17 m., height of forehead .05 m., length of nose .07 m., width of mouth .055 m., length of right foot .32 m.

means of an iron dowel, the stump of which has expanded through oxidation and split both the arm and the drapery about it. Save for the loss of the nose, the thumb and index finger of the right hand, and the left forearm already mentioned, the statue is in almost perfect condition; a few unimportant fragments of drapery. however, have disappeared—three or four from the roll of the chlamus at the left shoulder, and another large piece from behind the upper part of the left arm. The upper rim of the left ear is also slightly chipped and a shallow dent may be observed in the top of the head towards the front. Upon the upper surface of the plinth, and more particularly between the feet of the figure, there remain numerous traces of a coating of coarse stucco painted a dark red; no other unmistakable traces of pigment survived.<sup>2</sup> It is to be noted, however, that the lips and eveballs are of a distinctly lighter shade than the remainder of the flesh surfaces and hence indicate clearly that they were at one time protected by a coating of paint; the difference in tone is sufficient to be marked even in a photograph (cf. Fig. 1).

As in the other members of the group, the material here employed is a fairly good grade of Pentelic marble in which may be detected an occasional silvery vein of schist; the block was somanipulated, however, that these do not appear noticeably in a front view of the figure. The back is further marred not only by the usual roughness of finish, but also by a considerable flaw in the stone itself in the region of the left shoulder. At this point the back is asymmetric, the left side being much flattened and roughned.

The statue is a nude male figure in heroic pose, the light *chlamys* being carried on the left arm and shoulder in the manner seen in the Hermes of Atalante.<sup>3</sup> The weight of the figure is supported on the right leg, while the left is flexed at the knee and advanced.

<sup>&</sup>lt;sup>1</sup> This is shown by a slight break in the drapery above, the rough working of the surface of the skin, and an "attachment boss" on the upper arm.

<sup>&</sup>lt;sup>2</sup> On the front of the plinth between the feet appears a cutting for one half of a strong hook clamp, by means of which the plinth was made fast in its basis.

<sup>&</sup>lt;sup>3</sup> Cf. Dickins, Hellenistic Sculpture, fig. 41 and p. 56. The author remarks: "The work has been referred back to a Lysippic original, but it seems more likely that it is an Attic adaptation of the eclectic school now (i.e., middle of third century B.c.) springing into existence." The type is preserved for us in a number of replicas (cf. Gazette Arch. II, 1876, p. 84, notes 1 and 2) and seems to have been popular and widespread in the late Hellenistic period. The work itself is of Pentelic marble and slightly over life size.

The left arm is bent at the elbow and the forearm is extended supporting the folds of the *chlamus* which fall along the thigh and leg and conceal the upper portion of the heavy supporting tree trunk which rises from the plinth behind the left heel. The right arm hangs naturally at the side with the hand half closed and the thumb forward, and seems to have held an attribute of some sort. This is indicated by a small hole drilled into the palm of the hand opposite the space between the tips of the third and fourth fingers. In consideration of the type of the figure I judge that the attribute could only have been a caduceus, of bronze and probably gilded. Many analogies may be quoted for the pose and the draping of the chlamus, most of which serve to indicate that we have here the usual "Hermes type" so characteristic of Hellenistic and Roman sculpture. a type repeated with almost infinite variation in the later imperial portraiture.<sup>2</sup> The head is turned to the right, the gaze level and direct, and though not of great intensity the general expression may be characterized as that of alertness in repose: a slight Augustan frown is noticeable between the eves. Like the other members of the Corinthian group, the statue gives no evidence of having been exposed to the weather, and must have stood under cover, either against a wall or within a niche.

The technique seems much like that of the portraits already discussed. The drill was used sparingly on the flesh surfaces, but much more freely in the undercutting of the drapery which is nevertheless most plastically and skilfully rendered, even to the indication of the leaden draping-weights at the lower edges.<sup>3</sup> Slight traces of drilling are apparent at the inner corner of each eye and at the corners of the mouth, the parting of the lips being rendered by carrying the "drill line" across from corner to corner (cf. Fig. 2). Elsewhere on the body the drill was used only in the hair about the pubes, where is to be noted a most unusual and archaic technique in that the hair is done in round "snail-shell"

<sup>&</sup>lt;sup>1</sup> In this connection it is interesting to note the passage of Athenaeus which tells us that Alexander liked to appear as Hermes (Athen. XII, p. 537E).

<sup>&</sup>lt;sup>2</sup> Cf., for example, Commodus as Mercury in the Mantua museum, Labus, *Museo di Mantova*, III, pl. VI, p. 34 f.; Augustus as Mercury in the Museum of Rennes, *Gazette Arch*. I, 1875, pl. 36, p. 135; Tiberius as Mercury in the Naples museum Reinach, *Rep. de la Sculp. Grec. et Rom.* I, p. 568, pl. 925, No. 2351, also Bernoulli, *Röm. Ikon.*, II, 1, p. 172, No. 15; Nero as Mercury in the Glyptothek, Munich, Reinach, *op. cit.* I, p. 577, pl. 938, No. 2397, also Bernoulli, *op. cit.* II, 1, p. 399, and III, p. 57, etc., etc.

<sup>&</sup>lt;sup>3</sup> Cf. the Hermes of Praxiteles for a similar detail.

curls, the centre of each being indicated by a distinct circular boring. The flesh surfaces are smoothly worked but unpolished, while the face and neck seem rather more carefully finished than the rest of the body. The modelling is good but generally lacking in fluidity and warmth, and although quite correct it appears somewhat hard and academic. The modelling of the face, though



FIGURE 2.—GAIUS CAESAR: CORINTH.

generalized, possesses, nevertheless, a degree of subtlety which shows up effectively when viewed in the proper light; yet we must admit that the forms are rather cold and lacking in detail, a trait characteristic of the period to which the work clearly belongs. The Roman age is further revealed by the careless treatment of the feet, which are broad, flat, poorly modelled, and out of proportion. These imperfections, though scarcely pardonable, are to be explained by the fact that the statue almost certainly occu-

pied a position well above the eye of the spectator and was intended to be viewed only from the front.

The hair lies close to the scalp after the Polyclitan fashion, and is divided all over its surface into flat waving tresses which seem as if drawn on it but never stand out separately in relief; the locks across the forehead are particularly stiff and careful in their arrangement and, as in the case of the Augustus and the Tiberius. seem to follow a fixed iconographic scheme. Upon the top and back of the head the hair is very summarily treated. The eves are fairly wide, with gaze directed very slightly downward and well to the right (cf. Fig. 2); the upper lids overlap markedly at the outer corners, and both the upper and lower are rendered sharply and in high relief, which in the former amounts almost to undercutting. These details of the hair and eves just mentioned derive undoubtedly from a bronze technique. The eveballs. though set well back in their sockets, are rounded and fairly prominent, the latter characteristic being accentuated by their unusual whiteness (cf. Figs. 1 and 2) due to the protecting layer of paint with which they were once coated. The brows are slightly arched and marked by a distinct ridge dividing them from the forehead again reminiscent of bronze. The frown between the eves, together with the broad forehead and a certain level gaze, gives the face its strongest resemblance to the Augustan type.

Attention must finally be called to a remarkable point of technique which has until recently received but scant attention from writers on ancient sculpture. I refer to indications which tend to prove that mechanical "pointing devices" were used in the classic period,—a subject upon which the statue under discussion serves to throw a ray of light.¹ On the rear of the left arm, where the

¹ Cf. Gardner, Handbook of Greek Sculpture (edit. 1915), pp. 32-35, . . . "In fact we can see such puntelli upon several unfinished works of sculpture. But these mostly belong to Hellenistic or Roman times; and even on works of this later period they are not always to be seen, while on earlier monuments they seem to be almost, if not entirely, unknown. . . . In later times, when genius and inspiration were less frequent, and art was more a matter of academic study, we find that the use of finished clay models became as universal as it is at the present day, and that their form was transferred to the marble by the same mechanical process that is now in use. The puntelli, however, seem, from their comparatively limited number, to have been rather a help to the sculptor . . . than a purely mechanical means of producing a marble facsimile of the clay model." For a further discussion of this subject, with full references, cf. Daremberg et Saglio, Dict. des Antiq. Gr. et Rom, s.v. sculptura, V. La confection de la statue.—La maquette. The most interesting

finish is far from careful, occur two conical protuberances rather less than 1 cm. in height; each takes the form of a truncated cone with a dot or sharp dimple-like sinking in the exact centre of the truncated area, and both are situated on the outer curve of the arm at a point where they would have been largely concealed by the drapery. The larger, situated on the upper arm directly above the elbow, has a height of .01 m. and a maximum diameter of .015 m., while the other, situated on the forearm in the same horizontal plane with the first but about .06 m. in front of it, measures .007 m. in height and .01 m. across. There is no doubt in my mind that these protuberances are typical puntelli which, because of their inconspicuous position, were forgotten in the final working over of the statue when many others were finally removed. If such is indeed the case, the statue was taken directly from a model by means of a process more or less mechanical.

Considered as a whole, it is quite clear that our portrait statue is of the same school and period as the Corinthian Augustus, and like the latter is academic and generalized in treatment. It displays also that same Greek trait of idealization so clearly marked in the former work, while on the technical side it would seem to have been modelled after a bronze original, or at least have been done under the influence of a strong school of bronze workers.

The description of the Gaius Caesar just given will apply almost equally well to the Lucius, its companion piece in the group, due allowance being made, of course, for the more mutilated condition of the latter. The scale in each case is identical, the type similar, and the technique very like. Of the Lucius the head, shoulders, and upper half of torso alone are preserved, the main break occurring above the navel and extending diagonally downward from right to left. The figure, like its companion, was doubtless cut from a single block of marble, although it is clear that the right arm, due probably to an accidental crack or break,

example of mechanical reproduction that has come down to us from antiquity is doubtless the marble athlete in the Uffizi (cf. Bloch, Röm. Mitt. VII, pp. 81 f.; Amelung, Führer durch die Antiken in Florenz, p. 21, No. 25; Furtwängler, Meisterwerke, pp. 393 f.), which is an almost exact replica of the famous bronze athlete from Ephesus (cf. Benndorf in Forschungen in Ephesos, I, pp. 181 f., particularly p. 194, "Es handelt sich also um eine mit dem mechanischen Punktiersystem erzeugte Copie.")

 $<sup>^1</sup>$  The dimensions are: greatest height .95 m., length of neck, front, .085 m., length of face .175 m., width of face .18 m., height of forehead .04 m., length of nose, approximately .07 m., width of mouth .052 m.

was repaired or restored by means of a hook-clamp spanning the fracture across the lower part of the biceps (cf. Plate XI and Fig. 3). It should be noted in this connection that there were found at about the same level as that from which came the bust itself and within the north aisle of the basilica a right hand and



FIGURE 3.—LUCIUS CAESAR: CORINTH.

wrist which fitted with an elbow and forearm discovered in the eastern portion of the building. Since these fragments are of Pentelic marble and of the same scale and technique as the portrait under discussion, it is practically certain that they belonged to it. Although the first finger and thumb are lacking, the hand is seen to be contracted as if to hold an attribute, probably a caduceus, its presence being vouched for here also, as in the case of the

Gaius, by a small hole drilled in the palm opposite the tips of the third and fourth fingers. The face unfortunately is considerably battered, the nose being almost entirely lacking save for the bridge between the eyes; the upper lip is also abraded and flattened while the lower is considerably chipped; the same may be said of the brows near the bridge of the nose, as also of the lids to a certain extent; the front of the right cheek is somewhat scarred, almost the entire rim of the right ear is lacking, and that of the left, together with the cheek just before it, shows several ugly dents. The roll of the chlamys upon the left shoulder is badly battered, the front of the torso is worn and roughened in places, and the entire surface of the marble is mottled with ground and root stains. No traces of artificial coloring survive.

The material employed is the usual fine-grained Pentelic marble, in which a thin vein of silvery schist marks the diagonal break through the left arm just below the shoulder.

The original statue was doubtless of a "nude Hermes type" very similar to that of the Gaius, and judging from the heightened left shoulder and the play of muscles on the same side of the torso, one may safely conclude that the weight of the body was carried on the left leg. The head is turned slightly to the left, and the gaze though level and direct lacks the maturity and assurance observable in the expression of the Gaius; in spite of mutilations the Augustan frown is to be seen between the eyes. It seems to me that the bust had in all probability not been exposed to the weather prior to its overthrow. The rather summary workmanship of the back surfaces at least proves the figure so stood that the rear was concealed from view.

The technique shows no notable departure from that of the Gaius. Although the characteristic drilling is observable in corresponding positions, the flesh surfaces, perhaps, seem rougher and less carefully done, and no especial care is lavished on the face. On the whole the modelling is the same, although even more generalized and lacking in detail. The hair is treated in the same close-fitting Polyclitan style but with much less care and definition, although here again the arrangement of the locks across the forehead seems to follow an iconographic scheme. The entire top and back of the head, however, is simply blocked out in the rough. The eyes are less widely opened than are those of the Gaius, while the gaze is directed slightly downward and to the left; a considerable difference is also apparent in the rendering of

the eveballs which here show a distinctly impressionistic treatment, particularly in that their surface is flattened and less sharply differentiated from the surrounding lids. The latter show no undercutting. These variations of technique, though slight in themselves and, perhaps, to be attributed to mere carelessness on the part of the sculptor, seem to me, nevertheless, significant. A careful comparison of the two portraits will show. for instance, that the impression of greater youthfulness imparted by the Lucius is directly traceable to the expression of the eyes. and this in turn is due to the impressionistic treatment of the eveballs. Other and less obvious indications also tend to prove that in this portrait the sculptor sought to represent a youth of less mature years; for example, the face is shorter, more rounded and less massive, the forehead is lower, the mouth less wide and firm. In brief, the task imposed upon the sculptor of this statue was that of representing a youth several years the junior of the Gaius, and this he has accomplished by perfectly definite means. There can be no doubt that the lads are brothers and that the more mutilated portrait figures the younger of the two.

Since it would interrupt the logical continuity of my subject to take up at this point the problem of the positions occupied by these two portraits in the great group to which they certainly belonged. I wish here merely to call attention to a few significant details bearing on this question. Upon comparison it is evident that, despite their striking similarity in most respects, they show a subtle variation in pose and rhythm which is exactly that which might be expected had they been designed to balance each other on either side of a central figure or figures. For example, although the arrangement of drapery is similar in each, the weight of the body rests on the right leg in the case of the Gaius, but on the left in the Lucius: the former turns his head and gaze to the right, while the latter looks to the left. Thus, although the position of the arms was probably identical in each, that delicate symmetry and rhythm in grouping was obtained which was so generally demanded by the fine artistic sense of antiquity.

The foregoing paragraph is intended as a mere suggestion in passing. I shall return to this point in my discussion of the reconstitution of the group as a whole.

By way of introduction to the iconography of the two portraits before us a brief résumé of the personal history of Gaius and Lucius may not be amiss. Sons of Agrippa and of Julia, the daughter of Augustus, Gaius was born in 20 B.C. and Lucius three years later.¹ Upon the birth of the latter both were adopted by Augustus² who conferred upon them the name "Caesar," and later overwhelmed them with honors before they were legally of age to receive them.³ Spoiled by the early distinctions which they had received, the youths became haughty and overbearing⁴ even to the extent of opposing Augustus himself; in this, however, they kept within bounds and gave him no occasion for withdrawing his favor.⁵ From regard for Augustus the Roman people in 5 B.C. chose Gaius consul designatus.⁶ Augustus himself created Gaius pontifex and Lucius chief of the college of augurs,² and had them consecrate a temple and preside at certain games.⁶

Gaius saw his first military service in Germany under Tiberius, and in his eighteenth year he was sent to the East under the title of Proconsul of Asia.<sup>9</sup> Here, with the assistance of mature and able advisors, he conducted successful campaigns against the Nabataeans, Parthians, and Armenians.<sup>10</sup> He was named consul in 1 A.D., marched once more into Armenia, and conquered a large part of the country.<sup>11</sup> There he was surprised during a parley with the enemy and received a wound from which he never entirely recovered. Enfeebled in body and spirit he determined to

<sup>&</sup>lt;sup>1</sup> Cf. Dio, LIV, 18.

<sup>&</sup>lt;sup>2</sup> Cf. Suet. Augustus, 64.

<sup>&</sup>lt;sup>3</sup> Cf. Tacitus, I, 3, and Dio, LIV, 10, 1.

<sup>4</sup> Cf. Dio, LV, 9.

<sup>&</sup>lt;sup>5</sup> Among other honors, Augustus erected a porticus and a basilica in their name (cf. Suet. Aug. 29). The porticus was one of the more important monuments built by Augustus during the latter part of his reign (cf. Van Deman, 'The Porticus of Gaius and Lucius,' A.J.A. 1913, pp. 14 f.).

<sup>&</sup>lt;sup>6</sup> Cf. Suet. Aug. 64; Mon. Ancur. III, 1 f.

<sup>&</sup>lt;sup>7</sup> Cf. Dio, Frags., Morelli's edit. of 1800, p. 6.

<sup>&</sup>lt;sup>8</sup> Cf. Suet. Aug. 29; Ovid, Fasti, V, 551 f.; Dio, LIV, 26, and LV, 8. According to Beaudouin, 'La Culte des Empereurs dans les Cités de la Gaule Narbonaise,' article in Annales de l'enseignement supérieur de Grenoble, III, p. 69 (Grenoble, 1891), the famous temple at Nemausus, known as the "Maison Carrée," was built in their honor before they died. In C. R. Acad. Insc. 1919, pp. 332–340, is a discussion of the traces of the inscription on the Maison Carrée, in which it is argued that the temple was built by Agrippa between 20 and 12 B.C., and dedicated to Gaius and Lucius between 1 and 5 A.D.

<sup>&</sup>lt;sup>9</sup> Cf. Ovid, De Arte Amandi, I, 177.

<sup>&</sup>lt;sup>40</sup> Cf. Velleius Paterculus, II, 101–102; Dio, LV, 11; Suetonius, *Tiberius*, 12; Augustus, 94.

<sup>&</sup>lt;sup>11</sup> Cf. Zonarus, p. 539.

live in private in Syria, but at the urgent request of Augustus he abandoned his command and started homeward. He got no farther than Lycia, however, where he died in 4 A.D. at the age of twenty-three.

His body was brought to Rome together with that of his brother Lucius who, at the age of eighteen, had died at Massilia one and a half years before while on his way to take command of the Roman troops in Spain.¹ In honor of their young patron Lucius the people of the colony of Pisa erected to him a sumptuous cenotaph and established a yearly festival which was later dedicated to Gaius also.² At Cos games were established in his honor, as well as a regular cult with attendant priests.³ These two prompt deaths which opened to Tiberius the succession to the throne gave rise to the suspicion that their author was none other than Livia, the mother of Tiberius.⁴

In attacking a problem of iconography such as that now before us the first step is necessarily an investigation of the numismatic sources, which ordinarily may be expected to lay the foundation for the attribution. In the case of Gaius and Lucius, however, the portraits which have come down to us on coins are comparatively few in number and of mediocre iconographic value; the two heads are for the most part represented in small scale facing each other on the same side of the coin, often combined with the head of Julia as well. With the exception of a few notable coins of Gaius, all the pieces bearing portraits of the young princes were struck outside Rome, and this in turn may further account for the inferior rendition of the features.

Thanks to the kindness of Mr. G. F. Hill of the Department of Coins and Medals of the British Museum, I am enabled to publish the more important coins of Gaius and Lucius Caesar, here for the first time gathered together (Fig. 4). Of the coins figured the two most important are without doubt the *aureus* and its corresponding *denarius* (Fig. 4, A and B), the only coins of Gaius

<sup>&</sup>lt;sup>1</sup> His funeral was celebrated with great magnificence, and altars, temples, and statues were erected in his honor (cf. Gardthausen, Augustus und seine Zeit, II, 3, p. 1127). He received divine honors in Mitylene, and in Pergamum together with Gaius; Acerrae erected a temple to both as heroes (cf. H. Heine, <sup>4</sup>Zur Begründung des röm. Kaiserkultes, <sup>7</sup>Klio, XI, 1911, p. 177).

<sup>&</sup>lt;sup>2</sup> Cf. Norris, 'Cenotaphia Pisana,' in Graev. Thes. VIII, 3.

<sup>&</sup>lt;sup>3</sup> Cf. H. Heine, loc. cit.

<sup>4</sup> Cf. Dio, Frag. VIII; Tacitus, I, 3; Pliny, VII, 145.

which are known to have been struck in Rome.<sup>1</sup> Although these have usually been dated 17 B.C., Mr. Hill<sup>2</sup> shows that they should rather be assigned to 5 B.C., the date of Gaius' deductio in forum; since this later date is now generally accepted, the iconographic



FIGURE 4.—PORTRAITS OF GAIUS AND LUCIUS CAESAR ON COINS.

value of the portraits is thus immensely increased. The heads on both coins are practically identical, of noble form and ideal cast of

<sup>&</sup>lt;sup>1</sup> For the aureus, A, cf. G. F. Hill, Historical Roman Coins, pp. 165–168; Brit. Mus. Cat., Roman Republican, II, p. 42, No. 4468; Cohen, Méd. Imp. Romaines, I, p. 113, No. 1, pl. V. For the denarius, B, cf. Hill, loc. cit.; Brit. Mus. Cat., Roman Republican, II, p. 42, No. 4469; Cohen, op. cit. I, p. 113, No. 2, pl. V. <sup>2</sup> Historical Roman Coins, loc. cit.

countenance reminiscent of a Greek athletic type which, while clearly Polyclitan, is yet somewhat influenced by the Olympia pediments: in addition they show plainly the influence of the Augustan type of features, and upon comparison with a profile view of the portrait at Corinth (Fig. 5) they manifest a general resemblance which can scarcely be fortuitous. The silver denarius (Fig. 4 c), with heads of Gaius, Julia and Lucius on the reverse was struck at Rome probably between 17 and 13 B.C.<sup>2</sup> It is hence almost too early to be of iconographic value, quite aside from the fact that the scale of the portraits is such as to render them practically worthless in this respect. The three bronze coins of Clazomenae, Corinth, and Pergamum respectively (Fig. 4. Nos. 1, 2, and 3) upon which appear busts of Gaius and Lucius face to face offer little information bearing upon our subject, save only, perhaps, that a certain "family resemblance" may be expected between the portraits of the youths wherever found.3 Of the remaining coins figured, the four bronzes of Thessalonica, Pergamum, Tralles, and Aphrodisias (Fig. 4, Nos. 5, 6, 7, and 8 respectively) show each the head of Gaius facing to the right: 4 due to the larger scale of these portraits we are justified in drawing certain conclusions as to the type of face which they present. It is apparent, I think, that a marked similarity exists between Nos. 5, 7, and 8; in each the forehead is rather low, the nose large and straight, the mouth firm with a slight droop at the corners, while the chin, though rounded and well marked, is comparatively small and receding; moreover the eye is large and wide, and looks forth boldly from beneath a slightly frowning brow. That such clear resemblances are observable in portraits from cities so widely separated as Tralles and Thessalonica is sufficient proof that the type represented was both well established and widespread: furthermore, as a type prevalent in the East, it might logically be expected to appear at Corinth. A comparison of the

<sup>&</sup>lt;sup>1</sup>Cf. a bronze head in the Glyptothek, Munich, published in *Arch. Zeit.* 1883, taf. 14, 3.

<sup>&</sup>lt;sup>2</sup> Cf. Cohen, op. cit., I, p. 116, No. 1; also Brit. Mus. Cat., Roman Republican, II, p. 95, No. 4649.

<sup>&</sup>lt;sup>3</sup> For these coins cf.: 1. Brit. Mus. Cat. *Ionia*, p. 31, No. 120; 2. Brit. Mus. Cat. *Corinth*, p. 62, No. 508, pl. XV, 15; 3. Brit. Mus. Cat. *Mysia*, p. 140, No. 250, a coin of Tiberius.

<sup>&</sup>lt;sup>4</sup> For these coins cf.: 5. Brit. Mus. Cat. *Macedon*, p. 116, No. 73, a coin of Augustus; 6. Brit. Mus. Cat. *Mysia*, p. 139, No. 246; 7. Brit. Mus. Cat. *Lydia*, p. 344, No. 117, pl. XXXVI, 1; 8. Brit. Mus. Cat. *Caria*, p. 40, No. 98.

coins in question with the portrait at Corinth (cf. particularly Figs. 5 and 1) indicates that such was, indeed, the case; we see in the latter the same rather low forehead, the large eyes beneath a slightly frowning brow, the large nose, the firm mouth, and the same rounded chin, small, and lacking in prominence. The



FIGURE 5.—PROFILE OF GAIUS CAESAR: CORINTH.

Pergamene coin, No. 6, presents a rather different type, more ideal, and decidedly Greek in feeling; nevertheless, here also a certain resemblance appears in the line of the forehead, nose, and mouth. The remaining coins, Nos. 4 and 9, with portraits of Lucius Caesar are worthless for iconographic purposes.<sup>1</sup> Never-

<sup>&</sup>lt;sup>1</sup> For these coins cf.: 4. Bronze, Pergamum, the reverse of No. 6; 9. Bronze, Tralles, cf. Brit. Mus. Cat. *Lydia*, p. 345, No. 123, pl. XXXVI, 3.

theless, comparison of the former with its obverse, No. 6, shows again a striking "family resemblance" between the portraits of the two youths, in this case, however, distinctly stylistic; the influence of the Augustan type is also quite apparent.

So far, then, as concerns the numismatic evidence adduced, we must admit that of itself it is inconclusive; yet we are justified, it seems to me, in basing upon it the following assumptions. First, that portraits of Gaius and Lucius, where found together, will show a marked resemblance one to another. Second, that they will be more or less strongly influenced by the well-known Augustan type. Third, that, in the case of Gaius at least, there existed in the East a widespread and clearly individual type, the salient characteristics of which are easily discernible; and further, that the influence of this type is quite apparent in the portrait at Corinth.

Turning now from numismatic criteria let us consider the remaining evidence for the attribution. This, though less direct, is far more conclusive.

Gaius at the time of his death was twenty-three, and Lucius died at the age of eighteen. With these ages the two portraits at Corinth seem to agree exactly. The figure of Gaius is, as shown above, clearly the elder by several years, and yet the face in spite of its comparative maturity can scarcely be that of a man of more than twenty-three. Further, arguing from the presumptive resemblance of the princes to other members of their immediate family whose features are well known to us—a resemblance clearly indicated even in the coins—we find that in this instance also the case for the Corinthian portraits is remarkably strong. Turning first to their father Agrippa, we discern at once a distinct similarity between his portraits and those of the youths at Corinth,—a similarity not merely assumed to have existed, but vouched for by Macrobius.<sup>2</sup> Compare, for example, our Figures 1 and 3 with the bust of Agrippa in the Louvre; in all three the cheeks and lower part of the face are extremely alike, although the chin of Agrippa is stronger and more prominent. The most striking

<sup>&</sup>lt;sup>1</sup> That these portraits probably do not represent the young Caesars as of a period *prior to their death* will be demonstrated hereafter in my discussion of the date of these works.

<sup>&</sup>lt;sup>2</sup> Macrobius, Sat. II, 5,—Idem (Augustus) cum ad nepotum turbam similitudinemque respexerat, qua representabatur Agrippa, dubitare de pudicitia filiae erubescebat.

<sup>&</sup>lt;sup>3</sup> Cf. A. Hekler, Greek and Roman Portraits, pl. 174.

likeness, however, is that observable in the mouth, lips, and cheek of the Gaius (Fig. 1). The close affinity shown by the Corinthian portraits to the Augustan type is so palpably self-evident and has been so frequently mentioned in the foregoing pages that I must crave the reader's indulgence for reverting to it again at this point; I wish, however, by the citation of specific analogies to remove any possible ground for doubt. It is to be noted particularly in the following comparison that the most striking resemblances reside in the upper half of the face.—in the brows. eyes, forehead, shape of the skull, and even in the general arrangement of the hair across the forehead to a truly remarkable degree: further, the resemblances, though found equally in each of the Corinthian portraits, are in general more convincing and more easily discernible in the Gaius than in the Lucius, due, of course, to the better preservation of the former. Compare, then, PLATE XI and Figure 2 with a head of Augustus in the Boston Museum.<sup>2</sup> Figure 2 with the head of the Augustus of Prima Porta.<sup>3</sup> Figure 3 with the head of a portrait in the Museo Nazionale.4 PLATE XI with a colossal head in the Vatican, 5 Figure 1 with a toga-clad portrait in the Villa Borghese, and Plate XI and Figure 2 with the bust of a statue in the Vatican. Since many another and equally convincing analogy might be drawn, it is only necessary in concluding this topic to call attention to the self-evident relationship between Gaius and Lucius and the portrait of Augustus at Corinth.8

Before passing on to a general consideration of the varied and heterogeneous collection of ancient portraits upon which attempts have been made at different times to foist the names of Gaius or Lucius Caesar, it is well to summarize briefly the results already obtained. In the first place, then, the argument from probabil-

- <sup>2</sup> Cf. Hekler, op. cit. pl. 167.
- <sup>3</sup> Hekler, op. cit. pl. 171.
- 4 Hekler, op. cit. pl. 173, left.
- <sup>5</sup> Hekler, op. cit. pl. 169, a.
- <sup>6</sup> Hekler, op. cit. pl. 165, b.
- <sup>7</sup> Bernoulli, Röm. Ikon, II, 1, taf. III, left.

<sup>&</sup>lt;sup>1</sup> Cf. Strong, Roman Sculpture, p. 356,—"The beautiful curved mouth of Augustus, and the fine abundant hair, combed somewhat boyishly over the forehead, where it separates into three distinct strands, are characteristics which reappear more or less markedly in other members of the Julio-Claudian family."

<sup>&</sup>lt;sup>8</sup> Cf. Pl. XI and Fig. 1 with pl. VI in the article on Augustus, A.J.A. XXV, 1921.

ity, in its cumulative effect, is well-nigh conclusive. We have here the portraits of two vouths who were clearly brothers; the portraits are companion pieces, of identical type, style, size, and technique: they were found within the limits of the same Roman building at nearly equal depths and were certainly set up together at one and the same time; one of the youths, represented as in the early twenties, is clearly several years older than the other. These facts of themselves would be amply sufficient to suggest in the strongest possible manner the attribution already made.1—but when in addition we note also that the features of each portrait show not only the most unmistakable similarity to those of Augustus but also a clear resemblance to those of Agrippa as well,—that with these portraits were found others, of Augustus himself and Tiberius, works of the same style, material, and technique, and all most assuredly belonging to a single great imperial group, the conclusion that the two portraits can only represent Gaius and Lucius Caesar is inevitable. It is further confirmed in striking manner by the numismatic evidence. We may, therefore, accept the attribution suggested, proceeding thence to note any confirmatory evidence discernible in other portraits supposed to represent these princes.

Of the so-called portraits of Gaius and Lucius listed by Bernoulli,<sup>2</sup> few are accessible to students in adequate reproductions, photographic or otherwise, and fewer still are of any iconographic significance, due to the fact that the identification in almost all cases is based on very slight evidence; a fancied resemblance to Augustus, stylistic conformity to the portrait type of the early empire, mere youthfulness and loftiness of mien, have often in themselves been considered sufficient ground for fixing upon a youthful male portrait the name of Gaius or Lucius. Of the six or eight pairs of portraits mentioned by the German scholar one only—the two busts of children in the Museo Chiaramonti<sup>3</sup>—is known to me, and this has since been shown to belong to a considerably later period.<sup>4</sup> I can say little more of the single portraits. The head of a youth, called Gaius, No. 365, in the Museo

<sup>&</sup>lt;sup>1</sup> Cf. Bernoulli, op. cit. II, 1, p. 133.

<sup>&</sup>lt;sup>2</sup> Op. cit. II, 1, pp. 133-137.

<sup>&</sup>lt;sup>2</sup> Cf. Amelung, Sculp. des Vat. Mus., I, taf. 61, Nos. 417, 419.

<sup>&</sup>lt;sup>4</sup> Strong, Rom. Sculp. p. 367, and pl. CXVII,—"The two busts, . . 417 and 419, so long misnamed Gaius and Lucius Caesar, belong to the Flavio-Trajanic period."

Chiaramonti,¹ shows no resemblance whatever to the portrait at Corinth and is probably somewhat later, if one may judge from the treatment of the hair. The gems are equally unsatisfactory. The two in the Cabinet des Médailles at Paris² do not, in the first place, portray brothers, nor do they further show any similarity to the portraits at Corinth.

To Bernoulli's list, however, I would add the following works, several of which are more important:

- 1. Relief on the so-called "altar of the Lares" in the Uffizi Gallery, dated 2 A.D.<sup>3</sup> Augustus occupies the centre of a group of three persons, with Livia on his right and on his left a young man, who is, perhaps, to be identified with one or the other of the two princes, more probably Lucius, inasmuch as Gaius was at this time in the East. Comparison of this portrait with the two at Corinth (particularly Figs. 1, 3 and 5) reveals a striking resemblance in type of face,—a similarity which extends even to details, as, for example, in the eyes, mouth and chin. Indeed, the "family likeness" here discernible is not to be denied, and we can only regret that the scale of the photograph of the Florentine relief is such as to preclude the possibility of determining to which of the Corinthian portraits it is more nearly akin.
- 2. Portrait head of Lucius in the Worcester Art Museum.<sup>4</sup> According to the *Bulletin*, this head is a companion piece to another in the Metropolitan Museum wrongly identified as a likeness of Tiberius in his youth; both heads are executed in the same kind of marble and were found at the same time and in the same place; further, the unmistakable resemblance between the personages proclaims them members of one family. The *Bulletin* continues: "From a study chiefly of portrait-coins and portrait-gems we believe it likely that these heads represent Caius Caesar and Lucius Caesar." Comparison of the portrait at Worcester with the works in Corinth is interesting; yet a sure

 $<sup>^{\</sup>mathtt{1}}$  Cf. Amelung, op. cit. I, taf. 58.

<sup>&</sup>lt;sup>2</sup> Cf. Babelon, Cat. des Camées Antiq. Gaius, p. 114, No. 247, pl. XXV, Lucius, p. 114, No. 248, pl. XXV; Chabouillet, Cat. Gen. des Camées, Nos. 204, 205; Duruy, Hist. des Rom. III, cut p. 747.

<sup>&</sup>lt;sup>3</sup> Cf. Amelung, Führer durch die Antiken in Florenz, p. 73, No. 99; Strong, op. cit. p. 74; Photograph Alinari, No. 1163; Bernoulli, op. cit. II, 1, p. 45, No. 102; Dütschke, Ant. Bildw. in Oberitalien, III, p. 218; Michaelis in Jb. Arch. I. 1891, p. 229, No. 23, fig. 10.

<sup>&</sup>lt;sup>4</sup> Cf. Bulletin of the Worcester Art Museum, V, No. 3, October 1914, p. 12, plates on pp. 4 and 5.

identification of the former with either one of the latter seems scarcely possible. To be noted, however, is the similarity in the arrangement of the hair across the forehead exhibited by the two Lucii.¹ On the other hand, the mouth of the Worcester portrait with its delicate Augustan curve is more nearly approached by that of the Corinthian Gaius, although here, of course, allowance must be made for the more damaged condition of the face of the Lucius. On the whole it seems to me that there exists at least a probability that the person represented by the two portraits is the same.

3. Portrait head of Gaius, called "the young Tiberius," in the Metropolitan Museum.<sup>2</sup> Due to the obvious similarity between this head and the portrait at Worcester, the comparisons drawn above will apply here equally well, and the same ambiguity is apparent upon comparison with the portraits at Corinth. The general contour of the face, the forehead, brows, and chin resemble those of the Gaius rather than of the Lucius (cf. Figs. 2, 5 and 1), whereas the mouth is very like that of the Lucius (cf. pl. XI and Fig. 3); nevertheless I should not hesitate to identify this portrait with that of Gaius at Corinth provided only that the hair across the forehead were at all similar. Under the circumstances, therefore, I can offer nothing more than a "probable identification." That the bust in the Metropolitan Museum represents Tiberius seems to me highly improbable.

4. Bronze statue of Gaius in the Metropolitan Museum.<sup>3</sup> Allowing for the difference in technique and effect of bronze and marble, and having taken into due account the youthful and immature forms of the bronze portrait, I think it quite probable that the latter represents the boy whom we see just grown to manhood in the Corinthian Gaius. A comparison of the two in profile discloses many points of resemblance,<sup>4</sup> while in full face<sup>5</sup> the greatest similarity exists in the tapering outline of the countenance, the shape of the chin and mouth, the broad low forehead, and the rounded dome of the skull; there is also a certain likeness in the brows and eyes. Here again the arrangement of the hair across

<sup>&</sup>lt;sup>1</sup> Cf. our pl. XI, with the Bulletin, pl. on p. 4.

<sup>&</sup>lt;sup>2</sup> Cf. B. Met. Mus. IX, No. 3, March 1914 pp. 60–61, figs. 2 and 3; also Miss. Richter, Handbook of the Classical Collection, p. 248, No. 55, fig. 151.

<sup>&</sup>lt;sup>3</sup> Cf. Miss Richter, in A.J.A. XIX, 1915, pp. 121-128, pls. I-VI; also in the *Handbook of the Classical Collection*, p. 246 f., No. 57, fig. 150.

<sup>4</sup> Cf. op. cit. pls. V and III, with our Fig. 5.

<sup>&</sup>lt;sup>5</sup> Cf. op. cit. pl. VI, with our Fig. 2.

the forehead gives strong confirmation to the identification proposed. Miss Richter, in discussing the bronze in the Metropolitan Museum, concludes that it is a Greek work done probably in the eastern half of the Roman Empire, and observes most aptly its importance in that it shows that at this comparatively late date there were still Greek artists, in no sense mere copyists, who were thoroughly imbued with the idealizing tendencies of the earlier Greek sculpture. This same observation holds true even more strikingly of the Corinthian portrait, since in the latter the course of this idealization lies in the direction of the classic Greek athletic canon rather than in that of the semi-orientalized Hellenistic tradition.

- 5. Portrait head, marble, in the Capitoline Museum, formerly called Caligula,<sup>2</sup> but identified by Studniczka as Gaius because of its resemblance to Agrippa.<sup>3</sup> The cut of this portrait given in the *Archäologischer Anzeiger* is on too small a scale to admit of fruitful comparison with the Corinthian portrait; it seems, however, to be of a rather different type, although showing manifest resemblances, *e.g.*, in the shape of head and face, and in the brows and mouth. The arrangement of the hair across the forehead is quite different.
- 6–9. With the head in the Capitoline Studniczka links four other so-called portraits of Caligula, to wit,—a head of green basalt in the same museum,<sup>4</sup> a head in the Uffizi,<sup>5</sup> a mail-clad portrait statue in the Naples Museum,<sup>6</sup> and a marble head in the Villa Albani,<sup>7</sup> and identifies each as a portrait of Gaius.
- 10. Marble portrait head of some young member of the Julio-Claudian family, found in Sussex.<sup>8</sup> This can scarcely represent Gaius or Lucius.
- 11. Cameo in Berlin bearing a portrait of a young man of pronounced Augustan type, yet clearly not Augustus.<sup>9</sup> Furtwängler, comparing it with the *aureus* of Gaius (Fig. 4 A), concludes that

<sup>&</sup>lt;sup>1</sup> Cf. op. cit. p. 123.

<sup>&</sup>lt;sup>2</sup> Cf. Bernoulli, op. cit. II, 1, p. 305, No. 2.

<sup>&</sup>lt;sup>3</sup> Arch. Anz., 1910, col. 532 f., figs. 1 and 2.

<sup>&</sup>lt;sup>4</sup> Cf. Bernoulli, op. cit. II, 1, p. 304, No. 1.

<sup>&</sup>lt;sup>5</sup> Cf. Bernoulli, op. cit. II, 1, p. 306, No. 11.

<sup>&</sup>lt;sup>o</sup> Cf. Bernoulli, op. cit. II, 1, p. 306, No. 9.

<sup>&</sup>lt;sup>7</sup> Cf. Bernoulli, op. cit. II, 1, p. 305, No. 5.

<sup>&</sup>lt;sup>8</sup> Cf. Haverfield, Arch. Anz. 1911, cols. 306-308, fig. 12.

<sup>&</sup>lt;sup>9</sup> Cf. Furtwängler, Antike Gemmen, I, taf. XLVII, No. 51,—II, p. 227, No. 51.

it is a portrait of the latter,—a conclusion borne out by its evident resemblance to the Gaius at Corinth.

From the foregoing it is clear that but slight confirmatory evidence for the identification of the Corinthian portraits is to be derived from a study of other supposed likenesses; indeed, the identification of each and all of the latter is based upon grounds so infinitely more hypothetical than is that of the marbles at Corinth that the evidence of iconographic resemblance ought clearly to be adduced in the opposite sense. Nevertheless, a strong mutual confirmation is, perhaps, to be admitted in the case of the Corinthian portraits and the relief in the Uffizi, and in that of the former and the bronze in New York, as well as the cameo in Berlin. Further, if the pair of marble busts in Madrid so highly praised by Bernoulli² were available in adequate reproductions for comparison with the portraits at Corinth, I feel sure that the mutual confirmation would be even more striking.

To anyone, therefore, who, with unprejudiced mind, has followed thus far the course of my argument for the identification of the Corinthian portraits, it must seem that the case in favor of the proposed attribution is complete. There can be no doubt that these portraits represent Gaius and Lucius Caesar.

Before passing on to a consideration of the remaining works of the Corinthian group a few words must be said as to the probable date of these portraits,—a question which logically arises at this point. In the first place, then, is there any known historical fact which would account for Gaius and Lucius having been thus honored at Corinth?

As to the number of statues and busts erected to the honor of these princes throughout the empire, there is every reason to believe that it was considerable. As the adopted sons of Augustus and the clearly designated successors to the throne, their rank was second only to that of Augustus himself, and when the latter, as it were, set the fashion by the early bestowal of numerous and extraordinary honors, cities, colonies, and individuals were not slow to follow. This, as might be expected, was particularly true of the eastern half of the empire, a fact clearly demonstrated by the number of coins struck with their portraits throughout the East.<sup>3</sup> Furthermore the extraordinary power with which the

<sup>&</sup>lt;sup>1</sup> Compare Fig. 5, with the gem cited.

<sup>&</sup>lt;sup>2</sup> Op. cit. II, 1, p. 134.

<sup>3</sup> Vid. supra.

youthful Gaius was clothed as Proconsul of Asia must surely have furnished occasion in that whole region for the erection of numerous monuments in his honor; this may be assumed the more particularly since to Lucius there was set up a statue in Nicomedia although he had never visited Asia and was at the time but fourteen years of age. The example of Nicomedia was doubtless followed in other cities of the Orient, yet the portraits of Gaius must always have been greatly in the majority.

As to Greece itself there is every reason to suppose that here also the princes were signally honored. Indeed, statues of Gaius and Lucius in Athens are known to us through inscriptions: the former was represented in the guise of the youthful Ares,2 while a statue of the latter was placed above the gateway of the Roman Agora.<sup>3</sup> Since Corinth was at this period of greater importance than Athens, at any rate commercially, and since, moreover, it represented the chief station on the direct route from Rome to the East, it is certain that Gaius sojourned there for a time while on his way to take command in Asia. He was, therefore, well known to the Corinthians and doubtless well liked. Hence his portrait was sure to have been included in the great imperial group, the erection of which was projected if not already under way at this very time.4 Further than the very general considerations just mentioned I am aware of no definite historical references which might either account for the appearance of these portraits at Corinth or serve to date them accurately. I think, however, that certain valid conclusions in this sense are to be drawn from the sculptures themselves.

We have already seen that there is good reason to believe the portrait of Augustus at Corinth was set up not long before 2 A.D., while that of Tiberius was, perhaps, erected shortly after the death

<sup>&</sup>lt;sup>1</sup> Cf. Perrot, Explor. Arch. de la Galatie et Bithynie, I, p. 4.

<sup>&</sup>lt;sup>2</sup> Cf. C.I.G. I, 311.

<sup>&</sup>lt;sup>3</sup> Cf. C.I.G. I, 312; also Frazer, Pausanias's Description of Greece, II, p. 186,—"Above the pediment or gable there was formerly a pedestal which, according to the inscription C.I.A. III, 445, supported a statue of Lucius Caesar."

<sup>&</sup>lt;sup>4</sup> I wish to call attention to the fact that here also we have a striking confirmation of the distinction involved in the bestowal of the name Gaius upon the more complete and carefully worked of the two youthful portraits; *i.e.*, since Gaius was known personally to the Corinthians, a more accurate and more finely finished portrait would naturally be demanded by them than would be deemed necessary in the case of Lucius. Moreover the sculptor, who was most certainly a Corinthian, had in all probability himself seen Gaius.

of Gaius in 4 A.D.1 Since the portraits of Gaius and Lucius belong to this same group they must, therefore, have been erected at about the same time. On grounds of probability, however, I think it unlikely that either of the princes would have been honored at Corinth before the visit of Gaius, whereas thereafter the probability would have been greatly increased, and further, that directly after the death of Gaius this would hold true to a much greater degree. We know that the body of Gaius was conveved with great pomp to Rome from Asia Minor, and here again the route must certainly have lain through Corinth. What more natural, therefore, than that, in addition to the temporary manifestations of grief and respect, the Corinthians should at this time have decreed the setting up of a memorial in the form of a portrait statue, -not only of Gaius whom they knew and truly mourned, but also of Lucius who had died but a short two years before? That such was, indeed, the case is impressively confirmed by the very manner in which the youths are represented. For while the Augustus and Tiberius of Corinth appear in the dress of everyday life, engaged apparently in a common religious rite, the two youths stand forth in heroic nudity, in the guise and posture conventionally assigned to Hermes. At this early period of the empire they would, I believe, scarcely have been so represented during their lifetime; at any rate I am aware of no contemporary nude statue of Augustus for example—or of any other member of the imperial family—which can be shown to have been set up before the death of the person represented.2 Furthermore it is scarcely probable that statues would have been erected to either Gaius or Lucius after the death of Augustus in 14 A.D.; in fact I think that honors of this sort would have ceased within a comparatively short time following the death of the princes, and most probably after the due period of mourning, when Tiberius had been clearly designated as the successor to the throne. A dead prince is soon forgotten,—and all the more quickly when his follower in the succession is known to have been his enemy.

 $^{1}$  Cf. the articles on Augustus and Tiberius in the preceeding numbers of the A.J.A., pp. 142 ff. and 248 ff.

<sup>&</sup>lt;sup>2</sup> But it must be admitted that in Athens and elsewhere the young princes would seem to have received at least semi-divine honors before their death; cf. for example an inscription in Athens, C.I.A., III, p. 496, 444a, in which Gaius is called the "son of Ares," " $\Lambda\rho\eta\sigma\sigma$  vióv. This inscription was not dedicated after the death of Gaius, but very shortly before, probably in 3 or 4 A.D.

From the foregoing considerations, therefore, it seems to me that the portraits of Gaius and Lucius at Corinth are to be dated within a comparatively short period immediately following the death of Gaius in 4 A.D. If, however, such exactitude be objected to on the ground of insufficient evidence, it will be readily admitted that the portraits must at least fall between the years 1 and 14 A.D.

In conclusion I must draw the reader's attention to several very interesting points of style discernible in these two works.—more particularly, of course, in the Gaius. It is quite apparent that in this statue we are to recognize an expression of the eclectic neo-Attic school, the working of which was so evident in the Corinthian Augustus: we note the same athletic build and length of leg, the small head, and the rather schematic treatment of the folds of the remarkably well-moulded chlamus depending from the left arm. As to this drapery. I must note in passing that in my estimation its folds manifest most clearly the influence of clay modelling upon the marble technique, particularly in the rendering of the crumpled surface texture.—and herein is perhaps to be recognized a confirmation of the inference already drawn from the presence of puntelli on the left arm (cf. supra, pp. 343 f.), i.e., that the statue was taken from a clay or plaster model with the assistance of some mechanical "pointing device."

Although the figure is rendered in a general style distinctly neo-Attic, it nevertheless shows certain variations from that norm which seem to me suggestive and well worthy of closer examination. It will be noted for example that the torso is heavier, more powerful, and of greater muscular development in proportion to the length of leg than is usual in neo-Attic work; the muscles stand out more clearly, are of firmer texture, more strongly modelled; the shoulders, though of great width, are sloping and heavy, and quite lacking in that square and slender angularity so characteristic of the school.<sup>2</sup> Moreover the groin-line, with the heavy roll of muscle just above the hip, is treated in totally different fashion, its curve more rounded and breaking sharply with the horizontal sinking at the hips, while the arms are proportionally shorter and more powerful. And, further, the figure as a whole possesses a certain sturdy, straightforward frankness of expression

<sup>&</sup>lt;sup>1</sup> Cf. article on the Augustus, A.J.A. XXV, 1921, p. 154.

<sup>&</sup>lt;sup>2</sup> Cf., for example, our Pl. X, with the male figure of the Orestes and Electragroup in Naples.

far removed from the languid self-consciousness of the usual neo-Attic work.

The source of these peculiarly distinctive variations from the norm, variations which serve to set apart these Corinthian statues from any neo-Attic work hitherto known, is not far to seek and might indeed have been predicted from the very geographic position of the city of Corinth. To make clear the source, therefore, it is scarcely necessary to suggest the comparison of the Corinthian statue with the Dorvphorus in the Naples Museum.<sup>1</sup> resemblance is so striking that it requires little comment. allowance having been made for the static pose and advanced left leg of the Gaius, together with the greater slenderness of the legs themselves and the smaller scale of the head, it is quite plain that the Corinthian figure was directly inspired by the famous work of That this should be the case is not surprising. though Polyclitus was himself an Argive, the schools of Argos and Sicvon seem always to have been closely united, and it is now well known that their common centre was transferred to Sicvon as early as the fourth century B.C.; further, it is quite logical to suppose that, as long as the art of sculpture continued alive in Greece. Sicvon remained the centre from which radiated the influence of the Peloponnesian athletic sculptors in bronze. Taking into account these circumstances, therefore, and recollecting also that the walls of Sicvon stood within sight of the ramparts of Corinth, we can scarcely wonder at the remarkable variation from type to be seen in the Corinthian Gaius: it is exactly what we might have expected. Although neo-Attic and eclectic it is characterized by the preponderant influence of the old Peloponnesian athletic canon. Indeed, this influence is to be traced even in details. For example, the head, though small, is covered with the closefitting hair of the Polyclitan type, which in its stiff and accurate locks betrays clearly the influence of the bronze technique. latter is plainly indicated also by the pronounced abdominal line. But enough has already been said to demonstrate my point.

These statues at Corinth, then—the Gaius, Lucius, and Augustus—prove the existence of the neo-Attic school in Greece. They show also that, in Corinth at least, the slender Lysippean canon of the school was considerably modified under the influence of the heavy Peloponnesian athletic type of the fifth century.

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<sup>&</sup>lt;sup>1</sup> Cf. Brunn-Bruckmann, Denkmäler, taf. 273.

## MOZARABIC ART IN ANDALUCIA

The art of the Andalucian Mozarabs¹ seems to have received as yet little attention from students of the Mohammedan occupation of Spain, although much has been written about the Mozarabs of Toledo. I hope, therefore, that some observations on the beautiful sculptures and mural paintings of these mediaeval Spanish Christians may be of interest.

Eighteen years study of the subject has left me with the conviction that this art was not implanted by invaders from the East. whether Greek, Roman, or Arab, but is in its essence traditional to the soil, and handed down from so remote a period that it would be rash to attempt to date it, although of course influenced from generation to generation by the political changes which took place in Spain. One must go to country villages, lonely manors. and granges among the mountains remote from cities if one desires to form a just idea of the astonishing persistence of tradition among the native Andalucians, who are as different in many characteristics from the practical Basques or Catalans as from the laissez-faire aristocrats of proud Castile. In the fertile vegas and precipitous sierras of the Southwest the true Iberian race, as apart from the Celt-Iberian, survives with habits and customs in some respects hardly changed since before the time of Christ. They produce corn, oil, and white wine in certain districts as did their forefathers under Carthage or Rome or their own King Arganthonius<sup>2</sup> in the sixth century B.C.: and certain details of the advanced agricultural science of the ancient Tartessus have been handed down in such perfection that travellers conversant with e.a. olive culture elsewhere have told me no other system excels the traditional Andalucian, the origin of which is lost in the mists of antiquity.

The same must be said of the irrigation systems generally attributed to the Moslem influence in Spain. I have found no

<sup>&</sup>lt;sup>1</sup> Moçtereb was a Christian who lived among the Arabs and was on friendly terms with them. Cf. Diccionario de la Academia de la Lengua española.

<sup>&</sup>lt;sup>2</sup> Herodotus, I, 163 ff.

fewer than four examples of proto-historic, or Bronze Age, or megalithic hydraulic works, easily recognizable by the cutting and placing of the stones. Three of these conduits still convey drinking water from headlands miles away to towns the "Cyclopean" foundations of which I have seen in the course of excavations undertaken for scientific or other purposes. That these remarkable works were not inspired by Rome is proved by the glaring contrast of the Roman repairs with the rough-hewn stones employed in the parent conduits, most of which lie at least four meters below the present level of the soil. And we have the authority of Strabo¹ for the high civilization of the Turdetanians (the name given to the Tartessians after their conquest by Carthage in or about the fifth century B.C.) in his time.

As another instance of the survival of tradition we have the proto-historic method of construction commented on by Caesar, known to the Arabs as tapia, and in the present day as terre pisée. I am writing this essay in a modern house built of tania, i.e. damp earth trodden between boards, and it is attached to a great fortress tower also built of tapia, with walls two meters thick and foundations of stones rough-cut in the Cyclopean style. This tower has Roman arches 7 meters high within, and Arabic horseshoe arches outside, of stone ingenuously and visibly dove-tailed into the Roman facing; and at the back of an Arabic arcature still more ingenuously introduced above the horseshoe arch on the existing facade. We have the original Iberian facade of earth stamped between boards and rubbed smooth on the surface by way of ornament. Where some of the Roman work has fallen away we see the holes where the proto-historic scaffold poles were fixed before Phoenicians or Carthaginians came to destroy, so far as in them lay, the proto-historic or Mediterranean civilization of Tartessus.

The tower is one of the five gate-towers of the ancient fortified city of Niebla, the Liblah of the Arab historians and the Ilipla<sup>2</sup> of the classics, and local tradition carries the history of this, the main gate, and the city back to the destruction of Tartessus at the hands of Carthage. Certain it is that the town existed when the Sun was the deity of Tartessus, for each one of these gates opens

<sup>&</sup>lt;sup>1</sup> Strabo, III, 146 ff.

<sup>&</sup>lt;sup>2</sup> Strabo, III, 141 ff., Polybius, XI, 20, Livy, XXXV, 1, and Pliny, N.H. III, 1, 3, read, apparently, *Ilipa*, not *Ilipla*. Pliny, *loc. cit.*, mentions another town, Ilipula. H. N. F.

at right angles to the great fortress wall—which still completely encircles the town—and has its outlet facing the rising sun.

These earthern walls, of which whole villages, including even edifices of some importance, are still constantly constructed. become extraordinarily hard in a short time under the burning Andalucian sun, while the proto-historic remains such as those of Niebla, and Seville also, are indestructible by any means short of dynamite. I had a skilled stonecutter at work a whole month opening a window in the wall of my tower, which when it came into my possession had no light and no ventilation. Both the great archways leading one into and the other out of the town had been built up by the peasant families who had lived in its shelter for hundreds of years, leaving only a small door to obtain access. In the middle of the wall we found, near the remains of some of the wooden pegs and a cord of esparto grass used to support the boards which confined the earth, a section of a very early flatbottomed plate with a sun symbol traced on it in metallic lustre material evidence of the height of civilization attained by the primitive inhabitants of Andalucia.

The construction of the fortress walls of Seville—now regarded as built over the remains of the lost city of Tharsis—is precisely similar to that of Niebla. These walls and the Alcazar, the palace of the rulers of Spain throughout history, are built of beaten earth on foundations of Cyclopean work five meters deep, and parts of the actual palace walls are no less than five meters thick. Behind the Renaissance facade of the garden front of the magnificent hall known as the Salon of the Emperor Charles V., because it was redecorated for his wedding, a stretch of the Arabic facade has been found, and behind this again General Tavira, Governor of the Palace, has discovered quite recently the primitive stone front of the original building with Iberian signs, doubtless mason's marks, on several of the stones. Very little of the original building is now visible, for the walls naturally have been faced again and again in the course of so many centuries; but in the palace gardens may vet be seen the remains of a massive tower in its primitive condition, and in the beaten earth of which it is constructed bits of Stone Age pottery have been discovered. The true history of the Alcazar of Seville will only be written when the extensive investigations set on foot by King Alfonso and superintended with keen interest by General Tavira reach the vast extent of subterranean chambers and galleries vet to be

opened up beneath the Arabic palace which was built by Motamidibn-Abbad in the eleventh century on what then remained of the five-meter thick outer walls overlooking the junction of the Guadalquivir and the Guadaira. Then we may hope to learn more about the proto-historic or Mediterranean civilization of the Iberian race, which has preserved, together with its irrigation systems, its methods of construction, and the details of its agri-

cultural science, the tradition of its sacerdotal garments and the racial type of its women in a series of sculptures and paintings unique in Christian art.

Although the Southwest of Spain was cut off from the march of northern Romanic art down to the reconquest in the thirteenth century, it is a mistake to suppose that religious art here developed solely along Mohammedan lines. In Arabic Spain (Chapter I. 'Christianity under Islam') evidence of unimpeachable authority will be found that Andalucia always had Christian art of her own, nurtured and developed by thousands of Andalucian Christians (Mozarabs) who lived here and practised their religion



FIGURE 1.—OUR LADY OF CARMEL: SEVILLE.

right down to the coming of the Almohades, or Moors of Morocco, as distinct from the Arabs from the East, in the second half of the twelfth century. So powerful was the Christian element in all this region that the Christians were able to retain their own rite, their churches and their priests, until the reconquest in 1248, even the bishops having held their sees in many cases until close to that event. Curious relics of the ancient Isidorian or Hispalian (Mozarabic) rite persist to this day in the Cathedral services at Seville, to the bewilderment of Catholics from other countries.

<sup>&</sup>lt;sup>1</sup> Cf. Glorias Sevillanas, by Don Manuel Serrano y Ortega.

To convince ourselves whence sprang the art of these Andalucian Christians, true to their faith through so many centuries of



FIGURE 2.—THE "LADY OF ELCHE"
RECONSTRUCTED BY DON JOSE PIZJOAN.
(By permission from the Burlington Magazine,
November, 1912.)

alien pressure, we need only compare the sculptured Virgin of Carmel (Fig. 1) with the "Lady of Elche" (Fig. 2). The general cast of the countenance, the peculiarly stately poise of the head, and the beautiful shape of the oval heavy-lidded eyes, proclaim the survival of a racial type.

The alabaster image of Our Lady of Carmel was found. together with a church bell. in digging for the foundations of a new convent for the Carmelite nuns of Seville in 1414 or 1415.1 On the secularization of this convent in the last century, the image was given into the charge of the Hieronymites of Buena Vista, on the bank of the Guadalquivir a mile out of the city, and when this monastery in its turn suffered the same fate, the exquisite statue was taken to the church of San Lorenzo, together with two sets of embroidered vestments of the fifteenth century. At. San Lorenzo I had the good fortune to see it before it was placed on the altar where it now stands. Thus I was able to make a detailed study of

the dress (now, alas, hidden under heavy draperies of velvet and satin, according to the religious mode in Seville today), although I could not get the modern crowns and adjuncts removed.

<sup>&</sup>lt;sup>1</sup> Zuñiga, Anales de Sevilla, Lib. X.

The classical costume with the *chlamys* is seen in the photograph, but not so the typical casulla monastica. This is of the form worn by the early Christians, which did not begin to vary, according to Sr. Gudioll v Cunill (Nocions d'arqueologia sagrada catalana) until the twelfth century. It is safe to say that racial tradition prevailed where so primitive a form of the vestment was represented. For my part, from internal evidence too long to give in detail here. I take this work of art to have been executed somewhere towards the third quarter of the eleventh century, when all the Mozarabic churches in Seville obtained support and were renovated, thanks to the influence of the Christian wife of King Motamid-ibn-Abbad, whose daughter married King Alfonso VI of Castile. In this image the chasuble consists of one piece only, and that is worn at the back. The hair, evebrows, and eves are painted, as are also the lips. This detail is seen in most, if not all, of the Mozarabic images of Andalucia.

A small alabaster image of the Virgin (Fig. 3) found at Niebla in the province of Huelva in 1912 has many of the same features as that of Carmel, not excepting the casulla monastica, but it has in addition an outline which is individual and of considerable interest. The strangely rotund shape of the body and the wide outflow of the skirt at the foot bear some resemblance to the well-known Hera of Samos in the Louvre. The shapelessness of the Niebla figure cannot be ascribed to ineptitude on the part of the artist, for the head has the same dignified poise and beautiful cast of features as the "Lady of Elche" and the Virgin of Carmel, while the floral decoration of the pedestal is highly artistic. Thus I take the rotund outline to be the survival of another racial tradition.

Tartessus (now Andalucia) was in close alliance with the Samians, as also the Phocaeans and Rhodians, in the seventh and sixth centuries B.C., temples to Hera, Artemis-Athene, and, later, Diana having been erected in many places in the region. There are relics of a Graeco-Tartessian temple at Niebla, steps and the base of a column cut in the rock still existing outside the town walls, while the base of a Doric column 63 centimeters in diameter found within the town suggest that the temple was of importance.

The statue of an Iberian or Tartessian priestess in the Archaeological Museum of Madrid (Fig. 4), from which Sr. Pizjoan reconstructed the "Lady of Elche" from the waist down, has the

<sup>&</sup>lt;sup>1</sup> Cf. Joaquin Costa, Estudios Ibericos, pp. 40 ff.

same peculiar outflow of the drapery at the foot. It may be that in the singular outline of the Niebla statuette we have a reminiscence not only of early Greek art as seen in the Samian Hera, but also of the frills and plaited flounces seen at the bottom of the skirt of many of the statuettes of Iberian priestesses.

The tradition of the *chlamys* also appears in the Niebla image, but half concealed by the wide, thick sleeves and disfigured by



FIGURE 3.—ALABASTER IMAGE OF THE VIRGIN: NIEBLA.1

holes made to support the image of the Child, which unfortunately was not discovered with the Mother.

Another singularly interesting and suggestive survival of the proto-historic sacerdotal dress is seen in the Mozarabic mural

<sup>1</sup> Found at Niebla, in the Province of Huelva, in 1913 and preserved in the museum of the Anglo-Spanish School of Archaeology. This shows the *casulla monastica* as worn also by "Our Lady of Carmel." The eyes are wide apart; the mouth slightly open and smiling; the nose long and springing from between the eyebrows, as in the "Lady of Elche."

painting of Nuestra Señora de la Antigua ("Our Lady of the Old Time") (Fig. 5) in the Cathedral of Seville. The "Lady of Elche." as also sev--eral of the statuettes of priestesses in Madrid, wears a long and voluminous cloak which when opened out would form a complete circle. The Marques de Cerralbo, President of the Madrid Junta Superior de Excavaciones tells me that this Iberian or Tartessian cloak was the parent of the sacerdotal cope, the cloak worn by priests in the street, and the cape considered typical of the Spanish caballero. The Tartessian priestesses wear it drawn closely round the figure and falling in rich folds over the arm from the elbow to the hem of the Just such a cloak is worn by "Our Lady of the Old Time," draped over the arms and from thence downward over the skirt, in wide, stiff folds which seem modelled on those of the priestesses. The dress flows out over the feet in small curves or plaits, another suggestion of tradition.

<sup>1</sup> Found at El Cerro de los Santos, Province of Andalucia, now in the Archaeological Museum, Madrid. It shows the characteristic draping of the round cloak, with the spreading of the skirts over the feet.



FIGURE 4.—IBERIAN PRIESTESS: MADRID.<sup>1</sup>



Figure 5.—Nuestra Señora de la Antigua: Seville.<sup>1</sup>

This remarkable painting existed in a chapel of the Cathedral which was served by faithful Mozarabic priests during the last years of the Almohade rule in Seville. and no one knows how long before. When Fernando III (Saint Fernando) conquered the city in 1248 these priests were dwelling in a cloister of the primitive basilica, which had never been rebuilt since it was founded, though the whole building, with the sole exception of the Chapel of "Our Lady of the Old Time." had been converted to Moslem uses at the end of the twelfth century. The cloister, which is entered by a remarkable archway of tenth century construction, still serves as the residence of canons and the celebrated Seises, whose famous dance dates at least from the reconquest and probably from long before that time. The thirteenth century Cantigas of Alfonso the Wise relate how Saint Fernando visited

<sup>1</sup>This is a mural painting in the chapel of its advocation in the Cathedral of Seville. The image which is about eight feet high is referred to as "Nuestra Señora de la Antigua" in the *Cantigas* of Alfonso the Wise (thirteenth century) and

from the resemblance of the design of the robe to a Spanish-Arabic textile of that period in which cherubs holding a crown are depicted, it may be inferred that the already ancient painting was renovated according to the artistic-taste of the time after the reconquest of Seville in 1248.

secretly this picture of Our Lady during the siege, as also how her refulgent beauty so dazzled the infidels who beheld it that not one could ever raise a hand to injure the picture. It remained in its original place, on the wall facing south in the ancient chapel of its advocation, until 1578. The chapel had then been rebuilt and

the painting was transferred with infinite care to the altar which it now adorns, amid the rejoicing of the city. Every year at daybreak on Easter morning a magnificent high mass is sung in the chanel in honor of "Our Lady of the Old Times," and is attended by the whole chapter in full canonicals, but as people are mostly asleep at that hour. few Sevillians or foreign visitors now share in this act of homage to the symbol of a faith which never wavered through five hundred years of alien occupation.

"Our Lady of the Old Time" was patroness of a very ancient order of chivalry which had as its device a jar of lilies or lotus flowers, the Spanish azucena, the Arabic açuçena, and the Egyptian sechen-n-aten (bunch of aten flowers). This order was known in the fifteenth cen-



FIGURE 6.—OUR LADY OF ROCAMADOR: SEVILLE.

tury as that of the Jarra (vase). The heraldic arms of the order of Nuestra Señora de la Antigua are also those of the Cathedral of Seville, which is dedicated to Maria Santissima—"Our Lady Most Holy." And an ancient almost forgotten Andalucian tradition gives the vase of azucenas as the heraldic arms of the Blessed Virgin herself, on the ground that the woman who ate of the root of the water-lily would conceive without human intervention, a mystical idea which may have come to Spain



FIGURE 7.—IBERIAN PRIESTESS:
MADRID.<sup>1</sup>

from Egypt with the Coptic adherents of the Arabs in the eighth century.<sup>2</sup>

The period of the painting of "Our Lady of the Old Time" has been hotly disputed. Successive "restorations" have increased the difficulty of classifying it with any certainty from the technical point of view as the work of this or that century. We may, however, assume that the original image must have been painted previous to the Almohade invasion in 1146, when such persecution of the Christians as ever took place in Seville would have been at its height, since it was the object of worship and was regarded as miraculous when the Moors were driven out in 1248. It. is certain that the chapel and its cult would not have been tolerated during that century had it not existed previously. while if a new presentment of the worshipped image had been painted after the reconquest the Christian chroniclers would not have failed to give it prominence.3

<sup>1</sup> In addition to the headdress similar to that of "Our Lady of the Corral," this figure shows the typical circular mantle and flounced skirt.

<sup>2</sup> Mr. Albert Van der Put, in the *Burlington Magazine* of August 1913 gives the portrait of a Knight of the *Jarra*, but does not explain that this was the principal Aragonese order of the fifteenth century. Variants of the vase of the Virgin (*la Jarra de la Virgen*) are repeated *ad infinitum* in Andalucian art in all its branches, and it pervades the whole Cathedral of Seville, especially in its unsurpassable ironwork, and its magnificent vestments which are comparable only to those of St. Peter's at Rome.

<sup>3</sup> The traditional cloak with its heavy folds draped over the elbow is seen also

"Our Lady of Rocamador" (Fig. 6) is a mural painting of the same dimensions as "Our Lady of the Old Time" and also has the thirteenth century cherubs holding the crown, although they do not appear in the illustration. Its history resembles that of the image in the Cathedral: it was painted at a period unknown for a "Hermitage and Hospice of the poor" and appears to have been given the (then new) advocation of Rocamador in or about 1252. The Hospice was then pulled down and the painting transferred to its present position on a wall under the Arabic minaret of the Church of San Lorenzo when that edifice, which had been used as a mosque, was reconverted to Christian uses. The records, however, are less clear than those of "Our Lady of the Old Time."

Another Mozarabic representation of the Virgin is the mural painting of "Our Lady of the Corral" in the Church of Saint Isidore in Seville. So far it has been impossible to obtain a photograph of this, for it is glazed and the light is extremely bad at all times. Here, again, we have the heavy-lidded almond eves and the finely chiselled lips typical of the race as seen in these presentments, but the picture as a whole is unlike any of the others, save as being much larger than life. The most interesting feature from the point of view of this study is the headdress. At the first glance it looks quite Egyptian, but when one climbs up a ladder with a candle to see it close at hand, it proves to be a drapery with straight folds hanging below the ears and adorned with heavy fringes and plaits of gold almost exactly like those seen in the statues of the Iberian priestess (Fig. 7). Such a detail can hardly be other than traditional; it cannot well be attributed to mere coincidence.

Here, then, are a few Mozarabic presentments of the Virgin existing in Andalucia. To describe all I have seen would need far too much space. If a systematic examination were made of the mediaeval statues and paintings in small towns and villages off the beaten track, material would be obtained for a volume which would throw a blaze of light on the traditional art of the Christians of Andalucia under Islam.

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in a tenth century manuscript. I think the Codice Albeldense, but I am quoting from memory. As will be seen, the arrangement of the drapery is too characteristic to be overlooked wherever one may meet with it.

## FRANCESCO DI GENTILE DA FABRIANO

During the nineteenth century the work of the painters who lived in the Marches was very much neglected by writers on art, and it has been due to such expositions as those at Perugia and Macerata that the public in this generation has come to realize the interest and charm of painting done in the more remote parts of Italy in the fifteenth century. One realizes, however, that many works of real merit are still hidden away in the inaccessible churches, convents and municipal galleries of distant towns which would bring a respectable amount of fame to their creators were they exposed together in one gallery visited by a larger public. It is difficult to form a just valuation of those men whose works are seldom seen, and then only in isolated examples.

One of the men of the Marches, Francesco di Gentile da Fabriano, has recently been brought to my attention through the chance discovery of one of his works, for some time lost to sight. Any existing estimate of his work, or account of his life, was hard to find. There is almost nothing known about him beyond the fact gleaned from his name which shows that he came from Fabriano. There are no documents by which to date his activities, and any deductions about him must be drawn from his work. What sense we have of his artistic personality is due to Mr. Berenson's reconstruction of his development which he gives in the Johnson Catalogue. The author there traces his everchanging style from the days of his training under Antonio da Fabriano to the influence of Crivelli, Bellini, Vivarini, Melozzo, Verrocchio and Pintoricchio. One sees in this long list of stylistic changes that, like many Marchigiani, Francesco was ever ready to be colored by the new influences brought into the Marches and to respond to those met with outside.

In his sketch of Francesco Mr. Berenson attributes to the artist some seventeen unsigned paintings, including the three in the Johnson Collection. Among these are the portrait of Guidobaldo

<sup>1</sup> Berenson, B. Catalogue of a Collection of Paintings and some Art Objects. John G. Johnson, Philadelphia, 1913, Vol. I, pp. 75 ff. All references to Berenson, unless otherwise noted, are to this work.

da Montefeltro in the Colonna Gallery, Rome, a St. Sebastian in the Lille Museum, a double tavola in the Perugia gallery and an Annunciation in his own collection at Settignano. These particular pictures are enumerated here to make the source of the attribution definite, since they are referred to again in the course of the discussion.

A recent visit to the Castello of Bracciano revealed the fact that there is a signed panel there by Francesco (Fig. 1). This

represents the Visitation, and inasmuch as it agrees with the description of Crowe and Cavalcaselle, it is probably the one seen by them in the house of the lawyer Dominici at Fermo and published by them in their *History of Painting in Italy*. A note by the editor of the edition of 1914 says that the picture had disappeared.

There are but five other signed works known by Francesco, and not six as listed by Thieme-Becker.<sup>2</sup> These are: Rome, Vatican, Madonna and Child; Lastra-a-Signa, Perkins Collection, Madonna and Child with St. John Baptist and Christ at the Column; St. Jean sur Mer, Curtis Collection, Ecce [Homo; London,



FIGURE 1.—THE VISITATION: BRACCIANO.

Mond Collection, Ecce Homo; Cirencester, Miserden Park, Leatham Collection, Portrait of a Boy.

The picture at Bracciano is on a wooden panel with a pointed arched top.<sup>3</sup> Mary and Elizabeth are standing against a gold brocaded curtain, the upper part of which is covered with a dark blue drapery. Above their heads the Holy Dove descends in

<sup>&</sup>lt;sup>1</sup> Crowe and Cavalcaselle, *History of Painting in Italy*, ed. Borenius, 1914, Vol. V, p. 210, and note.

<sup>&</sup>lt;sup>2</sup> Thieme-Becker, Algemeines Lexikon der Bildenden Künstler, 1916, Vol. XII, p. 303.

<sup>&</sup>lt;sup>3</sup> Width, without moulding 23 inches; height about 37.

benediction, while at either side of the curtain hanging fruits are conspicuous against a pale sky.

The Virgin, in a blue mantle with green lining and an inner robe of cream yellow, has her head covered with a crisp white headdress, the long locks of her hair twisted and bound. Elizabeth, who clasps the hands of the Virgin, is clad in brown. The flesh color is of a curious ivory tint without any trace of rose. The drapery is metallic and arbitrary in the arrangement of the folds, in the manner of the Paduan school. The loop of drapery often seen in other examples of Francesco's work appears on the dress of Elizabeth.

The figures of the infant Christ, His hand raised in blessing, and the St. John are pictured on the robes of their mothers. This type of iconography, rare in the latter part of the fifteenth century, would make fairly certain the identification with the Fermo panel where this feature occurred.

The foreground is strewn with roses, marguerites, and a cherry in the approved Crivelli manner and bears at the base the signature FRANCISCUS GETILIS DE FABRIANO; even without this the work is signed by the hatchings of the brush strokes which cover the entire picture and which Mr. Berenson in connection with other works termed "niggling notation." The colors are clear and the panel in good and seemingly untouched condition.

Though this is not a great work, the Visitation has features which make it very pleasing. The colors are harmonious and vibrant, the composition is dignified and united in the simplicity of arrangement which so amply fills the frame. In his modelling of surfaces and feeling for planes Francesco here shows a great improvement over his earlier full length compositions, and more nearly approaches his superior, Lorenzo da San Severino, in that respect. A lack of spiritual feeling results, however, from the contemplative attitudes of the two women who should be regarding each other and sharing the knowledge of the future. Again the evident attempt of the artist to amplify the meaning of the scene beyond the limits of his ability by the use of outgrown iconography leaves one cold.

From a study of all the works attributed to Francesco, the

<sup>&</sup>lt;sup>1</sup> Beside the "niggling notation," a marked preference for a certain pleasant shade of sap green and a trout-like speckling of red and green on the lining of draperies appear in the early works.

signed paintings seem to take a definite place, forming a group closely related and of nearly contemporary production. This period seems to have been somewhat before the middle years of his working career, for though there are several works of less developed character which owe their inspiration to the local school and would precede this group in point of time, there are also others which show a change in manner and a development



FIGURE 2.—TRIPTYCH: PERKINS COLLECTION: LASTRA-A-SIGNA.

due to contact with Florentine and Umbrian masters of a later date.

The traits which hold five of the six signed works together are: the treatment of the hair, very metallic and sharply marked into locks, not the spinning out of the hairs on the wig-like basis as in the earlier works; the placing of the figures against a curtain or flat ground; a decided interest in natural objects. This tendency is brought out in the butterfly of the Vatican Madonna, the fruits and flowers of the Visitation, the hanging garland of the Leatham portrait, and in the carefully painted flies on the brow

and chest, respectively, of the Mond and Curtis Ecce Homos. The one signed work which does not share with the rest the treatment of the hair or the Crivellesque interest in natural history, is the Perkins triptych which is more closely related in technique and type to the Fabriano strain and must be the earliest of the group (Fig. 2).

There is undoubtedly a northern influence perceptible in Fran-



FIGURE 3.—Ecce Homo: Mond Col-LECTION: LONDON.

cesco's style. Mr. Richter saw it in the Mond Ecce Homo, and was led to the belief that Antonello da Messina was its source (Fig. 3). Mr Berenson sees the Flemish strain in the same work and in the Matelica Crucifixion, but does not give more reason for it than that it came from Antonio da Fabriano. The same influence appears also in the heavy draperies of the Johnson Madonna No. 130 and perhaps in the facial type of the St. Elizabeth at Bracciano. Might not this be due to the presence of Justus von Ghent in Urbino? Justus worked for some years prior to 1474 in the palace of Federigo da Montefeltro.<sup>2</sup> His influence was felt by many artists in

Italy and it would not be surprising if among them was one who lived in the near-by town of Fabriano. The fact that Francesco is accredited with the portrait of Guidobaldo da Montefeltro in the Colonna Gallery (Fig. 4) would add support to the theory of his contact with the work, if not with the personality, of the Fleming. It is interesting in this connection to suggest that the Leatham portrait might represent Guidobaldo when he was older (Fig. 5). The resemblance is not close enough to make the identification sure, but certainly enough to cause conjecture, partic-

<sup>&</sup>lt;sup>1</sup> Richter, The Mond Collection, London, 1910, Vol. II, p. 485.

<sup>&</sup>lt;sup>2</sup> Venturi, Storia dell'Arte Italiana, Vol. VII, 2, p. 124.

ularly if the similarity of the forms of the mouth and chin in the two pictures is noted.

Another reason for inferring a connection between the work of Francesco and that of Justus von Ghent is found when a figure of the Blessing Christ of the Musée Bonnat in Bayonne, which Mr. Berenson connects with Francesco, is compared with a panel of the same subject in Cittá di Castello reproduced in Venturi

as the work of a follower of Justus.<sup>2</sup> Any exact conclusion about these paintings cannot be made, as the work has been done from photographs which were verv small. If it were not for the badly painted hands of the Citta di Castello picture, I should be tempted to think that it also might possibly be the work of Francesco. In the case of the Bayonne Christ the resemblance to the Vat-Madonna ican marked enough to leave little doubt of its authenticity.



FIGURE 4.—GUIDOBALDO DA MONTEFELTRO: COLONNA GALLERY: ROME.

In looking over material collected in the Marches it seems possible to attribute two other paintings to Francesco. One is the work of his earlier period, the other of his last manner. The first is a triptych in the

<sup>&</sup>lt;sup>1</sup> Mr. Berenson, with the greatest generosity, gave free access to his photographs and notes on Francesco with permission to use them. It was there that the Bayonne picture was grouped with Francesco, though it has not been published by Mr. Berenson. The writer also wishes to acknowledge with gratitude the gift of photographs Nos. 5 and 8 from Mr. Berenson and the permission from Mr. Perkins to have made a copy of No. 2. To M. Georges Bergés of the Musée Bonnat thanks are due for the catalogue of the Museum.

<sup>2</sup> Venturi, op. cit. Vol. VII, 2, pp. 129, 131.

Pinacoteca Communale of Fabriano, done in the spirit of that locality, the tradition that held over from the time of the great Gentile (Fig. 6). The points which make the attribution reasonable are the treatment of the hair, each hair spun out on a flat mould; the way the hair projects behind the ears, as in the Perugia tayole; the painting of the lobe of the ear in ball



FIGURE 5.—PORTRAIT: LEATHAM COLLECTION: CIRENCESTER.

form, the high lights touched with white paint. The Madonna is very like the one in the Perkins triptych and the solid gray background is the same.<sup>1</sup>

In the Museo Civico of Pesaro there is a triptych, the central part of which is not by the same hand that painted the two wings. and gable top (Fig. 7). The central part. showing Christ carrying the Cross, may be a late work by Francesco: done under the influence of Pintoricchio (with whose work he shows himself familiar in the Johnson Madonna, No. 131), it may show more especially the effect

of the Borromeo panel painted by Pintoricchio in 1513. The reasons in this case are found in the similarity of the figure of Christ to the St. Sebastian of Lille (Fig. 8). The hooked loop of

¹ In connection with this triptych it is worth while mentioning the striking resemblance borne it by two other paintings which copy the central section in many details. One, a tavola, is in the Monasterio di S. Maria Maddalena at Matelica; the other, a fresco, decorates a sotto-portico of the Brefotrofio of Fabriano. As 1 have not seen either of the originals it is impossible to make deductions, but the fresco, at least, does not seem to be by Francesco.

drapery in the robe of Christ is characteristic, and there is a feeling in the Mary akin to that in the St. Elizabeth of Bracciano.

If this is Francesco's work, the date of his activities might well be placed somewhat later than formerly. Mr. Berenson suggested from 1460 to the end of the century. Perhaps from 1475 to 1515 would better cover the perplexing variety of style. In so



FIGURE 6.—TRIPTYCH: PINACOTECA COMMUNALE: FABRIANO.

secluded a region as Fabriano, older strains holding over would explain the harking back to the Gentile types and the crudities of Francesco's early style, while the later date would explain the astonishing change and advanced ideas that appear as the artist travels about—such a contrast as is made by the Perugia tavole and the Berenson Annunciation.

In looking for further evidence of a nature to show that Francesco could have been flourishing in the early part of the sixteenth century, a painting of the Annunciation in the Seminario of Pesaro comes to mind.<sup>1</sup> This panel is very like the one in Settignano in the curious birds and foliage of the foreground and background. There is also a similar treatment of the woodwork,—intarsia of light wood on a dark ground being used in each. This painting bears the date 1510, and even though it might not



FIGURE 7.—CHRIST CARRYING THE CROSS: MUSEO CIVICO: PESARO.

be the work of our artist, yet it throws light on the date of this type of composition.

If one is willing to admit the later date of Francesco's activities, what is there to prevent a change in the relationship between him and Lorenzo da San Severino? This, according to Mr. Berenson, was that of master and follower. Lorenzo is known to have been involved in a lawsuit in 1468, when he had to pay a fine.<sup>2</sup>

<sup>2</sup> L. Venturi, L'Arte, XVIII, p. 198. <sup>2</sup> L. Venturi, L'Arte, XVIII, p. 191.

He could not have been much less than twenty at that time. This would make his dependence on a less gifted worker seem doubtful.

There is still much work to be done on this question of the early works of these two men and their fellow painters. As an instance of the confusion that exists between their styles, the altarpiece at Serrapetrona may be noticed. Both Mr. Perkins and Mr.

Berenson have attributed it to Lorenzo. while another critic inclines to the idea that it may be by Francesco.<sup>1</sup> Again. the triptych of the Piersanti Museum in Matelica was given to Lorenzo by the directors of the Macerata exhibition: Mr. Perkins denied this. but was not able to name the author. while Mr. Berenson gives it to Francesco.

Francesco, though a minor artist, is an interesting one. His Madonnas are of a gentle and pensive type that makes them



FIGURE 8.—SAINT SEBASTIAN: LILLE.

very charming; his feeling and reverence ring true and he seems to express a really sincere belief in the saints and holy personages he depicts. His sense of the decorative is well brought out in the Perkins triptych with its warm colors and rich Gothic frame. In his portraits there is a simplicity and directness of characterization in the features, even though Sig. Leonello Venturi may remark on the "deficient corporeal architecture" of the portrait of the young Guidobaldo!<sup>2</sup> In his St. Sebastian of Lille and the Pesaro Christ the heads are full of feeling and emotion without

<sup>&</sup>lt;sup>1</sup> Count Umberto Gnoli expressed himself thus in a conversation.

<sup>&</sup>lt;sup>2</sup> L. Venturi, L'Arte, XXI, p. 27.

being sentimental. In short, Francesco would seem to have proved himself worthy of more attention and credit than he has received.

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## THE ALTAR OF MANLIUS IN THE LATERAN

THE well-known marble altar of Manlius in the Lateran was discovered in 1846 in the ruins of the theatre of the Etruscan city Caere. With it were found, in more or less fragmentary form. statues of Augustus, Tiberius, Claudius, and other less certainly identified members of the Julio-Claudian house, which are now to be seen with the altar in the sixth room of the Pagan Museum of the Lateran. The altar is of simple rectangular form with projecting base and cornice and with scrolls at the top. It is adorned on all four sides with reliefs which in spite of their slight artistic merit present scenes of considerable interest. The front (Fig. 1) bears the inscription (C.I.L. XI, 3616) carved in excellent letters of the early Empire G(aio) Manlio G(aii) f(ilio) cens(ori) perpet(uo) clientes patrono. Below the inscription from which it is separated by garlands hanging from bucrania is a relief representing a sacrificial scene, one of the most valuable for Roman ritual that has been preserved from antiquity. On the right a Roman clad in the toga which is drawn over his head is pouring a libation from a patera upon an altar on which may be seen fruit and the flames of the fire. To the left behind the altar is a camillus, clad in the costume usual to the type, with a fringed cloth (mappa) over his left shoulder. He holds an urceus in his right hand. In the background between the camillus and the Roman may be seen the head and shoulders of another figure. To the left of the camillus, somewhat in the rear, is a flute-player. the left of the altar is a bull whose head is being held by two kneeling boys clad in aprons (cultuarii). Beside the bull

<sup>1</sup> Some of the statues were discovered in 1840, but they undoubtedly came from the same building as the objects found later. See account of excavations, Benndorf-Schoene, Die antiken Bildwerke des lateranischen Museums, 121–122. For this altar see Ibid. No. 216; Altmann, Römische Grabaltäre, No. 235, fig. 143, 143a; Helbig-Amelung, Führer, II, No. 1177, p. 17; Bowerman, Roman Sacrificial Altars, 1913, pp. 24–27; Wilpert, L'Arte, II, 1899, p. 8, fig. 7a. The altar was first published in Mon. dell'Inst. VI, 13; cf. Henzen, Annali dell'Inst. XXX, 1858, 5–17.

with axe uplifted to the left is the *popa* or slayer of sacrificial victims. Clad like the boys in a short apron he strides to the right ready to deal the death blow. Behind the bull is another *popa* with a sacrifical hammer (*malleus*) in one hand, and a platter,



FIGURE 1.—ALTAR OF C. MANLIUS: ROME.

apparently of flowers and fruit, in the other. On the two ends of the altar are almost identical representations of a beardless male figure with long curly hair (Fig. 2). He is clad in a short girded tunic and boots and holds a *patera* in one hand and a *rhyton* in the other. The figure stands on a slight rocky projection between laurel bushes.

Although these three faces have frequently been published, the back (Fig. 3) which is of some importance for the interpretation of the altar is known only from the unsatisfactory drawing in the original publication of the altar.¹ In the centre of this face is a female figure seated on an elaborately adorned high-backed throne which rests on an elevated rocky base. She is clad in stola and palla, the latter of which is drawn over her head. She

holds a patera in her right hand and a cornucopia, now much mutilated, in her left. Her feet rest on a low footstool. On either side of this figure, who is clearly intended to be a goddess, are groups of three standing figures. Facing the goddess whose throne is turned slightly toward the left are three women clad like her in stola and palla which is also drawn over their heads The one nearest rests her right hand on the knee of the goddess and the other two have their hands raised as if in supplication. On the other side of the throne are three men clad in tunic and toga. The one in the centre has his right hand at the throat of the man on the extreme right.



FIGURE 2.—ALTAR OF C. MANLIUS: END.

The man nearest the goddess against whose throne he leans looks away from her to watch the two men beside him.

The figures on either end of the altar are the familiar type of Lares, generally believed to represent the household gods of the Manlii.<sup>2</sup> The sacrificial scene on the front has regularly been attributed to the cult of the goddess enthroned on the rear, who

<sup>&</sup>lt;sup>1</sup> Mon. dell'Inst. VI, 13; cf. Reinach, Répertoire des Reliefs Vol. III, p. 276. The position of the altar makes it impossible to secure a good photograph of this face.

<sup>&</sup>lt;sup>2</sup> Wissowa s.v. Lares, Roscher's Lexikon, col. 1897; Religion und Kultus der Römer<sup>2</sup>, p. 173 and note 7.

has been variously identified as Fortuna, or Concordia.<sup>1</sup> Yet an insuperable objection to such a relation in the two faces lies in the fact that the victim is evidently a bull, and that Roman ritual law did not permit the sacrifice of a male victim to a female



FIGURE 3.—ALTAR OF C. MANLIUS: REAR.

divinity.<sup>2</sup> Another explanation of the scene must, therefore, be secured.

This altar has often been compared with a series of altars that preserve dedications to the Lares Augusti set up by *vicorum* magistri of Rome, monuments of the cult of the Lares Compitales

<sup>&</sup>lt;sup>1</sup> Cf. Henzen, Benndorf-Schoene, and Helbig, loc. cit.

<sup>&</sup>lt;sup>2</sup> Cicero, De leg. II, 12, 29; Arnob. VII, 19. Cf. Wissowa, Religion und Kultus der Römer<sup>2</sup>, p. 413.

which Augustus in his reorganization of the vici in Rome identified with the Lares Augusti and associated with the worship of his Genius.<sup>1</sup> There is a striking analogy between the altar from Caere and one of these altars now in the Conservatori at Rome. On two sides of it are figures of Lares similar to those on our altar. and on the front there is a sacrificial scene. In this relief four vicorum magistri, the officials usually in charge of the cult of the Lares Compitales, are gathered about an altar and beside them, reproduced in much smaller scale, are the victims, a bull for the emperor's genius and a pig for the Lares. It is important to note in this connection the fact learned from the Acta Fratrum Arvalium that the bull was the regular sacrifice to the emperor's Genius, while the ox, a more usual victim in other cults, was offered to deified emperors.<sup>2</sup> Now although Pompeian household shrines show that this cult of the emperor's Genius gave rise to the cult of the master's genius with the Lares familiares in the home. the sacrifices offered in such cases seem never to have been hostiae majores such as the bull. It is unlikely that a private monument to Manlius's Genius and Lares familiares should have been adorned with scenes so closely analogous to those in vogue in the imperial cult at the time, and it is further improbable that such a monument should have been erected in a public place decorated with statues of princes and rulers as was the theatre of Caere. With the abundance of evidence for the spread of this new form of emperor worship in Italian municipalities it is clear that the scene on the altar from Caere is a sacrifice to the emperor's Genius and that the Lares on the sides are the Lares Augusti.4 The character of the reliefs, the forms of the letters in the inscription, and the absence of cognomen in Manlius's name all indicate that the

<sup>&</sup>lt;sup>1</sup> Altar in Conservatori, Rome. Cf. Altmann, *Grabaltāre*, p. 176, No. 232, figs. 141, 141a, *C.I.L.* VI, 30957; Altar in the Vatican, Altmann, *op. cit.* p. 177, No. 234, fig. 142. *C.I.L.* VI, 445; Altar in the Uffizi, Florence, Altmann, *op. cit.* p. 175, No. 231, *C.I.L.* VI, 448.

<sup>&</sup>lt;sup>2</sup> C.I.L. VI, 2041, 2042, 2044, etc. See Krause, De Romanorum hostiis quaestiones selectae, Dissertation, Marburg, 1894.

<sup>&</sup>lt;sup>a</sup> Cf. Wissowa, op. cit. p. 173, note 2, for summary of evidence in municipali-

<sup>&</sup>lt;sup>4</sup>The laurel, a familiar imperial emblem, provides further support for this identification. It is, however, not conclusive evidence for, like other features of the official cult of the Lares Compitales, the laurel is sometimes borrowed by the private household cult. Compare the laurel bushes beside the Lares on a wall painting of the Casa del Centenario in Pompeii, Daremberg et Saglio, Dict. des Ant. Gr. et Rom., s. v. Lares, fig. 4343.

altar belongs to the beginning of the empire and probably to the Augustan Age. Its inscription to Manlius, an eminent citizen who held the very unusual title of censor for life. is to be explained by the fact that Manlius's clients who set up the altar were prominent in the cult of the Lares Augusti and the Genius of the emperor. They may have been the officials in charge of one of the shrines of the cult. These officials, regularly four in number, held the title magistri. They were usually freedmen; in any case they were recruited from the strata of society to which the client class belonged. It is natural that Manlius's clients should have honored their patron with an altar on which was represented a scene from the cult which it was their special prerogative to observe. It so happens that there exists for Caere an inscription which attests this cult not for the vici, but for the curiae, a form of city division, which the town had, perhaps, retained from Etruscan times.<sup>2</sup>

It remains to identify the goddess on the rear of the altar and to explain the scene there represented. The generally accepted view is that she is Fortuna who is here the presiding divinity of Caere.<sup>3</sup> The frequent representations of Venus Pompeiana at Pompeii show the importance in Italian municipal cults of these personifications of cities which are to be traced originally to the inspiration of Eutychides's famous Tyche of Antioch. Bearing in mind the physical features of the towns sometimes reproduced in these personifications, one is tempted to see in the high rocky pedestal on which the goddess's throne is placed an indication of Caere's situation on a steep tufa ridge. There is, moreover, evidence, which has never been cited in this connection, for an oracle cult of Fortuna at Caere. To no other divinity could have belonged the lots at Caere, of which the mysterious shrinkage in numbers is recorded by Livy among the prodigia that marked

<sup>&</sup>lt;sup>1</sup> The title which is known in no other municipality except Caere occurs in only one other inscription, C.I.L. XI, 3617, a record of another Manlius who was, perhaps, the son of this one. On the office see Rosenberg, Der Staat der alten Italiker, 1913, p. 68.

<sup>&</sup>lt;sup>2</sup> C.I.L. XI, 3593. Deos curiales genium Ti. Claudi Caisaris Augusti p. p. Curiae Aserniae A. Avillius Acanthus dictator, etc. (the next line is in an erasure). As Rosenberg has pointed out (op. cit. pp. 133-134), the dei curiales are to be identified as the Lares of a curia. Cf. the inscriptions on three cippi, Lares semitales, Lares [c]uri[a]les, Lares viales, Dessau 9251, a, b, c.

<sup>&</sup>lt;sup>3</sup> Cf. Helbig-Amelung, Benndorf-Schoene, Bowerman, loc. cit.

Hannibal's entrance into Italy in 218.¹ Such a cult may well have been revived by Augustus and the goddess may have received the *cognomen* Augusta attested for her at Pompeii as early as 3 a.d.² Since Fortuna Augusta (or Augusti as the name was sometimes written) was in conception a goddess whose functions were closely akin to the Genius Augusti,³ her association with the Lares Augusti and the emperor's Genius would be natural.

But there are two objections to this identification. The goddess is not the usual imperial type of Fortuna and the scene about her throne is not easy to explain with reference to the cult of that divinity. It is true that the patera and the cornucopia are the regular attributes of the Greek ἀγαθὴ τύγη<sup>4</sup> and are found on representations of Fortuna on coins of Vespasian, Hadrian, and Septimius Severus.<sup>5</sup> But in these cases the goddess is always represented standing. The seated Fortuna, 6 a frequent type on imperial coins, is invariably represented with the rudder of a ship which, even for the standing type, is the most common attribute of Fortuna.<sup>7</sup> Moreover the goddess on our altar, seated to the left with patera and cornucopia, conforms, except for the veiled head, to the prevailing type of Concordia Augusta as she appears on numerous coins beginning with the reign of Nero.8 The veiled head is characteristic of the same goddess as she is represented on republican coins.9 This seated type of the goddess, which is. however, subject to many variations, 10 may have been fixed when

- <sup>1</sup> Livy XXI, 62. According to Cicero the oracle at Praeneste was the only such cult still in use in his day. *De Div.* II, 41, 85-87.
- · 2 C.I.L. X, 824.
  - 3 Cf. Otto, s.v. Fortuna, Pauly-Wissowa, col. 37.
- <sup>4</sup> Cf. J. S. Hild, s.v. Fortuna, Daremberg and Saglio, op. cit., fig. 3236, 3247, 3248.
- <sup>5</sup> Vespasian's coin has the inscription *Fides Fortuna*. Cohen, *Médailles Impériales* Vespasian 162; Hadrian 769 ff.; Septimus Severus 185.
- <sup>6</sup> Cf., however, the late silver seated statuette representing the Fortuna of Constantinople who holds the patera and cornucopia. Gardner, J.H.S. 1888, pp. 47–81, pl. V.
- <sup>7</sup>Cohen, *Médailles Impériales*, passim. The rudder is the goddess's chief attribute on republican coins also.
  - 8 Cohen, op. cit. Nero, 66, 67; Vitellius 13-16; Vespasian 62, 63, 71-74.
- <sup>9</sup> Grueber, Coins of the Roman Republic in the British Museum, I, 418, 420, 479, 576, 577; II, 498.
- <sup>10</sup> Cf. Aust's summary of the various types, s.v. Concordia, Pauly-Wissowa. See also Peter, s.v. Concordia, Roscher's Lexikon.

Tiberius in 10 A.D. reconsecrated to Concordia Augusta<sup>1</sup> the venerable temple of Concordia which he had rebuilt on the south slopes of the Capitoline.<sup>2</sup> Tiberius's desire to emphasize his harmonious relations first with Augustus and later with his mother Livia provided a special motive for the cult of the goddess. It was with reference to the latter relationship that the building of Eumachia at Pompeii was consecrated about 22 A.p.3—before the break between mother and son—to Concordia Augusta and Pietas.4 Still given the many irregularities in the type, and the absence of early imperial representations of Concordia Augusta. I should not feel inclined to urge this identification if it did not provide at least a partial explanation for the figures grouped about the goddess on the altar from Caere. The attitude of entreaty evident in the three women on the left may well represent a prayer to the goddess of Concord to effect a reconcilation between the two men on the right. The relation of the third man to the scene must, however, remain an enigma. There is very possibly a reference to some particular event with which we are not familiar.5

<sup>1</sup> Cf. Fasti Praenestini, C.I.L. I<sup>2</sup>, p. 308. There is no adequate reason to justify the doubts that have often been expressed about this date. Cf. Heinen, Klio, 1911, p. 173.

<sup>2</sup> The cult statue seems to have had a laurel crown. Cf. Ovid, Fasti, VI, 91 f. This feature is also found on a republican coin. Cf. Grueber, op. cit. I, p. 492.

<sup>3</sup> Mau-Kelsey, *Pompeii*, its Life and Art<sup>2</sup>, pp. 110 ff., has shown that since the building was decorated in the third Pompeian style it cannot, as has formerly been supposed, have dated from the reign of Nero. Mau has strong arguments to support his dating of the building about 22 A.D.

<sup>4</sup> Livia's special relation to Concordia is evident from the fact that she dedicated a shrine to the goddess in the Porticus Livia in 7 B.C. (Ovid, Fasti, VI, 637). It is possible that the goddess on our altar whose face is unfortunately obliterated had the features of Livia. The veiled head common in Livia's portraits and the fact that she is known to have been identified with the other abstractions, Pietas, Iustitia, and Salus, favor the view, even though there is no certain instance of her representation as Concordia. Mau (op. cit. p. 112) believed that the headless statue of Concordia Augusta (a standing figure with cornucopia), found in the building of Eumachia, had the features of Livia. Perhaps the same is true of the much mutilated bust of a female figure with cornucopia on the fountain relief at the entrance to the same building in Abbondanza Street (Mau, op. cit. fig. 50, p. 117). This head, the mistaken identification of which with Abundantia gave the modern name to the street, is almost certainly Concordia. But the relief is too much damaged and the criteria for Livia's portraits are too uncertain to enable us to reach any conclusion.

<sup>5</sup> Cavedoni, Bull. dell'Inst. 1859, pp. 172–174, who alone has favored the

In any case whether the goddess on the rear is Concordia or Fortuna, this altar from Caere is an important early imperial monument of the cult of the Lares Augusti and of the Genius of the Emperor—another testimony to add to the constantly increasing volume of evidence for the hold which the imperial cult speedily acquired among the old Italic stock.

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identification of the goddess with Concordia, suggested that the two men might have the relation of debtor and creditor. The third man, he thought, might be Manlius.



# ARCHAEOLOGICAL DISCUSSIONS<sup>1</sup>

# SUMMARIES OF ORIGINAL ARTICLES CHIEFLY IN CURRENT PUBLICATIONS

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## GENERAL AND MISCELLANEOUS

Archaeological Interpretation.—In a recent book entitled Archäologische Hermeneutik (Berlin, 1919, Weidmann; 432 pp.; 298 figs.; 4to.) Carl Robert gives a detailed and thoroughly illustrated exposition of archaeological method in the interpretation of ancient monuments. After an introductory chapter on "Seeing, Drawing, and Describing," he deals with the identification of figures and with interpretation based on the representation alone, on the myth represented, on literary sources, and on other monuments; on the installation of the work in question, on its milieu, pendants, and provenance. There are chapters on the reconstruction from monuments of myths not recorded in literature, on deceptive sources, on restorations and forgeries, on the reconstruction of fragmentary works, and on falsely interpreted, uninterpreted, and uninterpretable monuments.

Coin Hoards.—In an essay entitled Coin Hoards (Numismatic Notes and Monographs, No. 1; New York, 1920, American Numismatic Society; 47 pp.; 6 figs.; 12mo.) Sydney P. Noe discusses the economic conditions and personal motives which lead to the hoarding and burying of coins; the laws which govern proprietorship in finds of coins; the condition of coins found in such hoards; and their archaeological and historical importance. Several famous hoards are described.

Palaeolithic Art compared with Aegean Art.—In Mitt. Anth. Ges. XLV, 1915, pp. 141–161 (34 figs.) J. Szombathy, after outlining the culmination and the successive stages of decay of Minoan-Mycenaean art applies the implications of this gradual decline to the study of the prehistoric art of central and Western Europe. The spiral motive, which, as it is found in Mediterranean art is to be traced through the Aegean civilization to Egypt, occurs in its first development on the neolithic pottery found at Butmir near Serajevo, and on other contemporary sites of Central and Western Europe, but later undergoes

<sup>1</sup> The departments of Archaeological News and Discussions and of Bibliography of Archaeological Books are conducted by Professor Deane, Editor-in-charge, assisted by Professor Samuel E. Bassett, Professor C. N. Brown, Miss Mary H. Buckingham, Dr. T. A. Buenger, Professor Harold R. Hastings, Professor Elmer T. Merrill, Professor Lewis B. Paton, Professor A. S. Pease, Professor S. B. Platner, Professor John C. Rolff, Dr. John Shapley, Professor A. L. Wheeler and the Editors, especially Professor Bates.

No attempt is made to include in this number of the JOURNAL material published after June 30, 1921.

For an explanation of the abbreviations, see pp. 108-109.

degeneration. With the spread of Mycenaean influence another wave of spiral decoration passed over all Europe. Other decorative motives are transmitted in a decadent form from the Aegean to Central European works which are to be dated as late as the middle of the first millennium B.C. Turning to the consideration of palaeolithic art in Europe, the author finds that in its earliest period, about 35,000 B.C. it produced some skilful plastic representations. Relief and painting were of somewhat later origin; and both relief and drawing show a gradual decay due to stylization and conventionalization. The art of the Aurignac period is of higher quality than that of succeeding periods, which show a decline analogous to that of late Aegean art. We must assume that the earliest known phase of palaeolithic art was preceded by long stages of development, the unknown products of which are the "missing links" of cultural evolution.

Children's Drawings and Primitive Art.—In a dissertation entitled *Physioplastiek bij Kinderen* (64 pp.; 8 figs.; Zeist, 1921, J. Ploegsma) H. P. J. KOENEN discusses children's drawings from the standpoint of experimental psychology, and compares them with the drawings of primitive man.

The Continuity of Prehistoric Culture.—In R. Arch., fifth series, VI, 1917, pp. 286–293, S. Reinach gives a detailed summary of an address delivered by Sir Arthur Evans at the Meeting of the British Association for the Advancement of Science held at Newcastle in 1916. The evidence for civilization in the quaternary period, for its wide spread and its continuation, is given, and the view is advanced that this early civilization actually continued to exist in such measure that the Minoan civilization may be regarded as its lineal descendant after the lapse of several thousand years. This conclusion is not fully accepted by Mr. Reinach.

The Celts.—In R. Arch., fifth series, VIII, 1918, pp.74–109, Léon Joulin gives a sketch of the history and civilization of the Celts from the earliest times until they were conquered by the Romans and the Germans. Literary and archaeological sources are separately examined and combined. A bibliography is appended.

The Copper Age in the Northern Caucasus.—In R. Arch., fifth series, XII. 1920, pp. 1-37 (pl.; 25 figs.), M. Rostovzev describes in some detail four Kourganes (one at Maëkop, two at Tsarskaïa, one at Oul) and their contents. He shows that the objects found in these tombs of the Northern Caucasus belong to the same period as Elamite and Egyptian objects of the Copper Age. They resemble also objects found at Troy, but are earlier. To the previously known centres of Bronze Age civilization in the East-Turkestan, Elam, Mesopotamia, Egypt—which exhibit an animal style developed in the decoration of common objects and a rich development of artistic activity in general, another is thus added—the Northern Caucasus. Here progress was native, not the result of importations, and was continued in the Bronze Age. Mycenaean influence is not found. Hittite analogies are interesting, and Caucasian influences upon the Hittites is more likely than Hittite influence upon the Caucasus. This early Caucasian civilization undoubtedly influenced the regions further north. Ibid. pp. 112-114 is a summary of two articles and a series of lectures by Professor Rostovzev on archaeological research in Southern Russia.

A Gandara Relief.—In Ber. Kunsts. XLII, 1921, pp. 51-54 (3 figs.) A. GRÜNEWALD identifies as Vāta, the wind-god, a figure in a Gandara relief be-

longing to the Leitner collection in Berlin. The wind-god has an important part in Buddhist beliefs concerning the life of the soul after death.

Buddhist Incense Burners.—In Ber. Kunsts. XLII, 1921, pp. 87-89 (3 figs.) A. V. LE Coq describes several forms of incense burners discovered in his excavations in Eastern Turkestan.

The Chinese Jou-yi.—In R. Arch., fifth series, VIII, 1918, pp. 110–130 (5 figs.) G. Gieseler writes of the jou-yi ("scepters" or "commanders' bâtons") of China. Their curved form is derived from the constellation of the dragon, and in their decoration there are elements derived from the myth of the dragon. Their use as symbols of happiness and longevity is discussed.

The Myth of the Dragon in China.—In R. Arch., fifth series, VI, 1917, pp. 104–170 (17 figs.) G. Gieseler discusses the myth of the dragon in China, showing that its origin is not palaeontological, but astronomical, pointing out its connection with the calendar, and explaining its mystical meaning and the forms in which the dragon appears in art.

An Album of Japanese Portraits.—In B. Mus. F. A. XIX, 1921, pp. 2–16 (37 figs.) K. T(OMITA) describes an album of paintings of "The Thirty-six Immortal Poets," consisting of thirty-six panels executed in black on white paper, with reserved use of color. With the exception of three portraits, which are by Sumuyoshi Hiromichi (1598–1670), the drawings are ascribed to Tosa Mitsusuke. Though made in the Ashikaga period, they illustrate the survival of the Tosa school, which developed a distinctly national style of painting in the Fujiwara period.

Statues of Terra-cotta.—In R. Arch., fifth series, XIII, 1921, pp. 136-138, W. Deonna gives a list (with bibliographical references) of 21 terra-cotta statues which have become known since the publication of his work Les statues de terre cuite dans l'antiquité, in 1908.

The Leconfield Collection.—In R. Arch., fifth series, VI, 1917, pp. 294–299 (14 figs.), S. Reinach gives an illustrated summary of the catalogue of the Leconfield collection. [Margaret Wyndham, Catalogue of the Collections of Greek and Roman Antiquities in the Possession of Lord Leconfield, London, 1915, Medici Society. xxiii, 142 pp.; 86 pls. 4to.]

Portrait Sculptures.—In a brochure entitled *Ikonographische Miscellen* (Kgl. Danske Videnskaberner Selskab., Histor.-filol. Meddelelser. IV, 1, 94 pp.; 35 pls., 21 figs.) F. Poulsen discusses a herm of Hyperides and a herm of Chrysippus at Steensgard, Denmark; a head of the type of Epaminondas in Moscow; a Greek male portrait head and a head of a Roman lady in Edinburgh; a portrait of Menander, a head of a Roman boy, a bust of a Roman lady, and a head of a man wearing a stephane, all in the University of Pennsylvania Museum; and the following works in the Ny Carlsberg Glyptothek: the seated poet, a female head of the Augustan period (Ny Carlsberg, No. 519), a head of Caligula (No. 637), and the statue of Metrodorus, the Epicurean.

Ampeliana.—In R. Arch., fifth series, XI, 1920, pp. 236-270, F. PRÉCHAC discusses the passages toward the end of the eighth chapter of Ampelius, which relate to the Artemisium at Ephesus, the Mausoleum, and the statue of the Nile. By a series of ingenious emendations (e.g. Isidis for sidi, §12) he gives meaning to the corrupt text, which he then interprets, showing that Ampelius gives some valuable information. From the passage concerning the Colossus of Rhodes (sol cum quadriga Rhodiorum), and other notices of that work and

the Mausoleum, he conjectures that the Mausoleum of Hadrian at Rome was surmounted by a pyramid and a quadriga.

The Mechanics of the Ancient Balance.—In Jh. Oest. Arch. I. XVI, 1913, Beiblatt, cols. 179–196 (5 figs.) E. Nowotny continues his discussion of the mechanics of the ancient balance begun *ibid*. col. 5. *Ibid*. cols. 197–206 (2 figs.) J. JÜTHNER adds notes on the same subject.

Proportion in Ancient Art.—In Mün. Jb. Bild. K. XI. 1921, pp. 109-115 (4) figs.) E. Mössel reports on his studies of proportion in the tectonic and free arts of antiquity and the Middle Ages. He maintains that (1) relations of measurements in monuments of architecture and the other arts from the early Egyptian period through the Middle Ages show a systematic regulation; (2) this system is not in general of numerical but of geometric character; (3) this geometric system is derived from the regular division of the circle into 4, 5, 6, 7, 8, or 10 parts; (4) since geometric construction determines equally the ground plan and elevation of buildings and the architectural details, it effects a homogeneous arrangement; (5) the division of the circle into ten parts, with its derivatives, is the most frequently employed system: (6) geometric regularity determines also the design of the so-called free arts, so far as these are associated with structural ideas; (7) the origins of this geometry are to be sought in primitive technical procedure and in astronomical discoveries. It gained acceptance through priestly usage and prescription, and had originally no aesthetic motive; but this was added later. A very commonly used proportion is the ratio of the radius of a circle to the side of the inscribed decagon, which may be expressed R: S 10=1,000: 0,618=1,618: 1,000. The application of this ratio and its derivatives to ancient architecture is exhibited in tables of the dimensions of a series of Egyptian and Greek temples.

## **EGYPT**

Egyptological Bibliography.—In R. Arch., fifth series, VI, 1917, pp. 197–212 and VIII, 1918, pp. 150–165, Seymour de Ricci gives a classified bibliography of Egyptology.

The Throne Room of Merenptah.—In Mus. J. XII, 1921, pp. 30–34 (pl.) C. S. F(ISHER) gives a detailed description of the principal hall of the palace of Merenptah at Memphis, which has been excavated by the Eckley B. Coxe Jr. Expedition of the University of Pennsylvania. Although the walls are preserved only to the height of four feet, the remains discovered permit an almost complete restoration of the hall and its decoration.

A Chair from Thebes.—In The New York Historical Society Quarterly Bulletin, IV, 1920, pp. 67–70 (2 figs.) Caroline R. Williams describes a chair which is among the objects bought by Dr. Henry J. Anderson in Thebes in 1847–48, and presented to the New York Historical Society in 1864. Its proportions and shape indicate a date about 1500 B.C. The legs have the form of the fore and hind legs of a lion. For ornament light and dark wood are used in alternation, and inlays of bone or ivory and ebony. The chair is mortised, pegged, and glued together, without the use of nails. It resembles a piece at Leyden (B. Metr. Mus. VIII, 1913, p. 75, fig. 6); and the panelling of the back is like that of a chair found at Thebes in 1898–99 (The Marquis of Northampton,

Spiegelberg and Newberry, Report on Some Excavations in the Theban Necropolis, pls. V and VI).

An Egyptian Sketch on Limestone.—In The New York Historical Society Quarterly Bulletin, IV, 1921, pp. 91–99 (fig.) Caroline R. Williams proposes a new interpretation of a satirical drawing on a limestone flake in the Egyptian collection of the New York Historical Society. It shows an animal standing on its hind legs, holding a fan in one forepaw, and offering a plucked fowl to a seated and partly draped animal which holds a flower in one forepaw and a bowl in the other. The figures have been interpreted as a fox and a lion, a cat and a lioness, or as two cats. Mrs. Williams points out that the seated and larger figure is a rat; the smaller one a cat. The humor of the satirical drawings of the Egyptians often lies in the reversal of the usual situation. The date of the New York drawing may be as early as Dynasty XVIII, or as late as Dynasty XXI.

The Arabarches of Egypt.—In R. Arch., fifth series, VI, 1917, pp. 95–103, JEAN LESQUIER finds that the Arabarches (Alabarches) was a fiscal agent concerned with the taxes; he was not governor of the desert.

The Thiasus of Ombos.—In R.~Arch., fifth series, XIII, 1921, pp. 24–36, Henri Sottas discusses the twenty-two Greek ostraca relating to the interment of Ibises and Falcons at Ombos. The seven demotic Egyptian ostraca are less fully treated. The ostraca were published by Preisigke and Spiegelberg in 1914 ('Die Prinz-Joachim Ostraka, Griechische und demotische Beisetzungsurkunden für Ibis und Falkenmumien aus Ombos,' Abhandlungen der Strassburger Wissenschaftlichen Gesellschaft, 19). The words  $\pi o \rho \theta \omega \tau \eta s$  and  $\pi o \rho e \nu \beta \hat{\eta} \kappa u$  are explained as titles, not (as by Preisigke) as proper names. The dates at which the persons named held the various offices of the thiasus are determined. They extend from 79 to 53 B.C.

The History of Egyptology in America.—In The New York Historical Society Quarterly Bulletin, IV, 1920, pp. 3–20 (3 figs.) Caroline R. Williams gives an account of the development of American interest in Egyptology in the nineteenth century. The first important Egyptian collection to be acquired for public exhibition in this country was made by Dr. Henry Abbott, an English physician who lived in Egypt from 1822 to 1852. This collection was bought by the New York Historical Society in 1860, and is still shown in the building of that society. It has value for the student of Egyptology, not only because of its intrinsic interest, but because its limited size and compact exhibition offer opportunities for convenient comparison between objects of different dates and styles.

# BABYLONIA, ASSYRIA AND PERSIA

The Dynasty of Agade.—In Mus. J. XII, 1921, pp. 75–77 (fig.) L. Legrain reports that a clay tablet in the University of Pennsylvania Museum has thrown new light on Sumerian chronology, giving for the first time a complete list of the dynasty of Agade. It is proved that Naram Sin, commonly called the "son of Sargon" was actually his great-grandson.

The Dynasties of Isin, Larsa and Babylon.—In Z. Morgenl. Ges. LXXIV, 1920, pp. 423-428, A. UNGNAD, on the basis of newly published texts recon-

structs the dates and relations of the dynasties of Isin, Larsa, and Babylon as follows

1010110		
ISIN	LARSA	BABYLON
2356 Ishbi-Irra	2356 Naplanum	
	2335 Emisum	
2324 Gimil-ilishu		
2314 Idin-Dagan		
	2307 Samum	
2293 Ishme-Dagan		
2273 Lipit-Ishtar		
*	2272 Zabaya	
	2263 Gungunum	
2262 Ur-Nimurta		
	2236 Abi-sare	
2234 Pur-Sin		
	2225 Sumu-ilu	2225 Sumu-abum
2213 Iter-pisha		
and the property of the proper		2211 Sumu-la-ilu
2208 Irra-imitti		
2201 NN.		
2200 Enlil-bani		
	2196 Nur-Adad	
2180	2180 Sin-idinam	
2176 Zanbiya		
·		2175 Sabium
	2174 Sin-iribam	
2173 MM.		
2210 2:22:21	2172 Sin-iqisham	
2168 Ur-Duazagga		
2100 01 2 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2167 Silli-Adad	
	2166 Eri-aks	
2164 Sin-magir	· ·	
ZIOI NIII IIINGII		2161 Apil-Sin
	2154 Rim-Sin	= 201 11ptt Nitt
2153 Damiq-ilishu	maga aviili Olli	
#100 Daning mand		2143 Sin-muballit
		2123 Hammurabi
		2120 Hammulani

The Sumerian School-Texts.—In Orientalia, II, 1921, pp. 51-53, P. Deimel shows that we have duplicates of school exercise-tablets varying in age from two or three centuries to two thousand years. These tablets agree down to minute details. This shows the accuracy with which the Sumerian literature was transmitted in the Babylonian schools. The whole mass of Sumerian literature, that was already in existence as early as 3000 B.C., was exactly copied by the following generations in the school-books, so that even two thousand years later no important variations had come into the text.

Gilgames and Engidu.—In J.A.O.S. XL, 1920, pp. 307-335, W. F. AL-BRIGHT investigates the well-known figures of Babylonian mythology, Gilgames and Engidu, and seeks to show that they were originally genii of fecun-

dity. According to Sumerian historiographers Gilgames was the fifth king of the dynasty of Eanna. The king-list gives him only 126 years, hardly more than Tammuz, who was torn away in the flower of his youth. Evidently there is a close connection between the hero's vain search for immortality and the short duration of his career. The original solar character of Gilgames is anparent in all the myths. The hero's adventures in the epic remind one of the deeds of Heracles and of Samson, whose essentially solar character is clear. In the capacity of solar hero, Gilgames has much in common with "his god" Lugalbanda. It may even be shown that the saga of Gilgames has been enriched with the spoils of the latter. In the cult, at least, the solar side of Gilgames was quite subordinate to his aspect as a god of fecundity. The chthonic character of our divinity, while in its specific development implying solar relationship, is no less an indication of kinship with gods of vegetation. We cannot, therefore, be surprised to find many Tammuz motives in the cycle of Gilgames. The most sympathetic feature in the Gilgames-epic is the enduring friendship between the king of Erech and his companion, the erstwhile wildman Engidu. So harmonious is their friendship that the latter almost seems a mere shadow, designed solely to act as the hero's mentor, a reflection of his buoyant ideal of life and dismal picture of death.

The Classical Name of Carchemish.—In J.R.A.S. 1921, pp. 47-51, A. H. SAYCE questions the usual German identification of Carchemish with classical Oropus or Europus. In the geographical list of Rameses III at Medinet Habu the names of Mitanni and Carchemish are followed by Uru with the determinative of place. In Mitannian this would have been pronounced Uru-pi, which is the original of the Greek Oropus. Originally Uru-pi was the district south of Carchemish, known to us as Pethor.

The Reform-Texts of Urukagina.—Urukagina, Patesi of Lagash (ca. 2800 B.c.), was a usurper who dispossessed the family of Lugalanda. In order to secure the throne to his dynasty and to weaken the party of Lugalanda he entirely reorganized the government. The records of these reforms are contained in the inscribed cones B and C of Urukagina. These are translated and provided with copious notes by P. Deimel, in *Orientalia*, a supplement to *Biblica*, published by the Pontifical Biblical Institute, II, 1921, pp. 3–31.

Babylonian and Hebrew Musical Terms.—In J.R.A.S. 1921, pp. 169-191, S. Langdon calls attention to a remarkable catalogue of Assyrian psalms discovered at Asshur, and recently published by Ebeling, Religiose Keilschrifttexte aus Assur. No. 158, with titles that throw much light upon the titles in the Hebrew Psalter. The Babylonians and Assyrians adopted the Sumerian chants for their own sacred music, and each psalm was usually sung to the accompaniment of a single instrument. The Sumerians classified their chants by the names of these instruments. Instruments were named from the number of their strings or notes. Thus an instrument of six strings was called "the sixths"; one of three notes was called shushshan, or "two sixths." This is the origin of the Hebrew direction 'al shôshannîm, which has nothing to do with "lilies," but means "on the three-toned instrument," probably a pipe in the form of an ox-head, such as has been found at Babylon. In like manner 'al hashshëmînîth means "on an eight-stringed instrument." The title shiaû appears for the penitential psalm. This is evidently the origin of the Hebrew title shiggāyôn.

The Old Assyrian Calendar.—The names of the old Assyrian months have hitherto been known only partially. The list is now completely reconstructed on the basis of newly discovered tablets by H. EHELOFF and B. LANDSBERGER in Z. Morgenl. Ges. LXXIV, 1920, pp. 216–219. The names are the same as in the contemporary Babylonian calendar, and in one tablet the Assyrian and the Babylonian months are equated, but in an inscription of Tiglathpileser I the Assyrian calendar is a month ahead of the Babylonian, i.e., the first Assyrian month, Qarrate (sic), is the twelfth Babylonian month; and in still another tablet the Assyrian Qarrate is the eleventh Babylonian month. Whether in the course of the centuries the Assyrian calendar actually came to differ from the Babylonian, or whether these differences indicate merely learned theories of the priests, it is impossible to say at present.

A Seal of the Persian Period.—In Pal. Ex. Fund, LIII, 1921, pp. 16-19, E. J. PILCHER describes a cone-shaped seal of bluish-white chalcedony, which depicts the moon-god adored by a worshipper, and which bears the inscription in Phoenician letters, "To Nabu-kigalni." This name means "Nabu is our foundation," and it has never yet been met in Babylonian texts, although it is a perfectly good Babylonian formation. Ishdu is the word ordinarily used for "foundation," and kigallu means also "Hades," so that it is easy to see why it was generally avoided in forming personal names. All of the Phoenician letters in this inscription, except the first, are reversed.

Textual Criticism of Inscriptions.—In J.A.O.S. XL, 1920, pp. 289–299, R. G. Kent illustrates from the Behistan Inscription the fact that the textual errors in inscriptions are of the same sorts that are commonly found in manuscripts. In this inscription he finds instances of errors of omission with no apparent reason, omission for phonetic accuracy, haplography, haplography with skipping, tele-haplography, pseudo-haplography, errors of addition through dittography and tele-dittography, and errors of change through addition and through subtraction.

## SYRIA AND PALESTINE

The Chronology of the Kings of Judah and Israel.—In Biblica, a new review published by the Pontifical Biblical Institute of Rome, II, 1921, pp. 3-29, A. M. Kleber subjects the data of the Books of Kings and Chronicles to a fresh investigation. He follows the thoroughly scientific method of putting all the dates from 932 to 586 B.C. in a vertical column, and then setting opposite to them the beginnings of kings' reigns that are established by Assyrian chronological data. He then attempts to bring into accord with these established facts the other statements of Kings and Chronicles. He maintains that all the statements can be harmonized, if one recognizes the following principles: (1) that the last year of one king's reign was also counted as the first of his successor, (2) that the kings of Judah used a sacred year beginning with Nisan, while the kings of Israel used a civil year beginning six months later with Tishri, (3) that there were interregna, (4) that there were co-reigns, and (5) that co-reigns were entered chronologically, and were cross-checked on the contemporary rival reign doubly: once at the year of accession of a king as co-ruler, a second time at the year of accession as sole ruler.

The "Lady of Lions" in the Amarna Letters.—In two of the Amarna Letters (Nos. 273 and 274 in Knudtzon's edition) the queen of a Palestinian town entitles herself "Mistress of UR-MAH-MEŠ, i.e., "Mistress of Lions." The meaning of this term has hitherto been entirely obscure. In Z. Morgenl. Ges. LXXIV, 1920, pp. 210–211, H. BAUER suggests that "Lions" is one of the many Palestinian place-names meaning "lions." These letters mention Aijalon and Zorah as places lying in the neighborhood, so that the residence of their writer is to be identified with Kefîra, "Young lion," the modern Kefîra near El Kubēbe, eight kilometers from Aijalon and twelve kilometers from Zorah, which is probably the same as Kefîrîm in Neh. vi: 2. The original form of the name was probably Beth-Kefîrîm, "House of young lions."

Nehemiah's Wall.—In J. Bibl. Lit. XXXVIII, 1919, pp. 171-179, K. Fullerton gives a careful study of the interpretation of the narrative of Nehemiah's procession recorded in Neh. xii: 31-39. This has an important bearing upon the archaeological problem of the course of Nehemiah's wall.

The Stele of Mesa.—In R. Arch., fifth series, X, 1919, pp. 59-89, D. Sidersky gives text and translation of the stele of Mesa, King of Moab, preceded by a history of the discovery and restoration of the monument, and followed by remarks concerning the Moabite language, a brief defence of the genuineness of the stele, and a detailed bibliography.

The Head of the Corner.—In R. Arch., fifth series, X, 1919, pp. 1-10 (2 figs.), J. Six interprets the "head of the corner" (Matthew, xxi, 42, "The stone which the builders rejected, the same is become the head of the corner") as the stone in which the pivot at the bottom of the door turned. Many such stones, from many ancient sites, are known. Many texts are cited in support of this interpretation. The pivot at the top of the door turned sometimes in a hole in the lintel, sometimes in a bronze bracket-ring which projected from the jamb.

The American School in Jerusalem.—In R. Arch., fifth series, XIII, 1921, pp. 123-131, Denyse Le Lasseur publishes an appreciative account of the work of the American School of Oriental Research in Jerusalem, under the guise of a review of the first volume of the Annual of the School (for 1919-1920).

A Nabataean Inscription.—In R. Hist. Rel. LXXXI, 1920, pp. 47-57, L. CLERMONT-GANNEAU proposes a new reading and interpretation of a Nabataean inscription found by the Princeton University Expedition at Umm es-Surab (Publications of the Princeton University Archaeological Expedition to Syria in 1904-1905 and 1909, Division IV, Semitic Inscriptions, Section A, Nabataean Inscriptions, No. 2). The suggested translation is "This is the arba'an which Mohlemon, 'Adryon, and Honron have made for Anamom their father, in the second year of Rabbel the King, king of Nabataea."

#### ASIA MINOR

The Stele of Chelidon.—In R. Arch., fifth series, XII, 1920, pp. 185-188 (pl.), Th. Reinach republishes the stele from Tekke, near Zela (Fr. Cumont, R. Ét. Gr. XV, 1902, p. 318, No. 14; Recueil des inscriptions du Pont et de l'Arménie—Studia Pontica III, 1910, p. 246, No. 273), now in the Cervantès-collection in Paris. In l. 2 he reads Μαιήτη, which he regards as an ethnic name.

Pontos (l. 3) is also ethnic and, in this form, a ἄπαξ λεγόμενον. The name Maeote would be that of the deceased Chelidon's mother (possibly a slave, named from the country of her origin, the shores of the Palus Maeotis).

Plan and Construction of Priene.—In R. Arch., fifth series, XI, 1920, pp. 366–371, Patrice Bonnet calls attention to some peculiarities in the plan and construction of Priene; showing, among other things, that all houses have the same orientation, that the uneven, sloping site was chosen as more wholesome than the plain, that the height and arrangement of buildings were carefully regulated, that water was abundant and well distributed, that the agora was divided into three parts, that the altar before the temple of Athena fronted the temple and was decorated on three sides only, the western side being entirely occupied by stairs, that the entire city is constructed in most logical fashion, and, finally, that polychromy was freely employed on the buildings.

Notes on Inscriptions from Miletus.—In Jh. Oest. Arch. I. XVII, 1914, Beiblatt, cols. 257–272 E. Weiss publishes notes on inscriptions from the Delphinium at Miletus.

Pisidian Wolf Priests.—By a series of analogies, Sir W. M. Ramsay deduces from the name Gagdabos Edagdabos on a Pisidian [priest's] tombstone, the conjecture that in the mountains of Pisidia a wolf-god was worshipped under the name Head-Wolf, and that the Roman slave-name Davus alias Gdabos, means Wolf, one of the tribe who worship the wolf-god. He adds some remarks on the difficulties experienced by the Greeks in trying to express in their alphabet words which, in their native form they could not even pronounce, and on the original meanings of the four Ionian tribe-names. (J.H.S. XL, 1920, pp. 197–202.)

Aphrodite Daitis.—In Jh. Oest. Arch. I. XVII, 1914, pp. 145–147 (fig.) J. Keil argues that Aphrodite Daitis, worshipped at Ephesus and elsewhere, was so called because at her festival young men and women met at a feast and that acquaintances thus formed sometimes led to marriage. The name Aphrodite  $A\dot{\nu}\tau o\mu \dot{\alpha}\tau\eta$ , also found at Ephesus, is to be explained in the same way.

The Financial History of Ancient Chios.—Chios, the birthplace of Homer and of the first family of sculptors in marble, a source of celebrated wines and a great slave mart, was rich in worldly goods as well as in fame, and its abundant and well-studied coinage affords an excellent field for the correlation of numismatic with political and social history. A sketch of this double stream of events in the eastern Aegean is given by P. Gardner in J.H.S. XL, 1920, (pp. 160–173) from the first coining of electrum and silver in the early part of the sixth century until after the conquest by Rome in 190 B.C. The fluctuating spheres of influence of Persian, Aeginetan and Athenian standards of weight in the Greek world and its outskirts and the reasons for the wide-spread use of Cyzicene and Chian coins are among the matters touched upon.

## GREECE

#### **ARCHITECTURE**

Mycenaean Studies.—A special study of the painted plaster floor of the palace at Mycenae, made by G. RODENWALDT in 1914, is published in *Jb. Arch.* I. XXXIV, 1919, pp. 87–106 (3 pls.; 11 figs.) Although the painting had suffered

great injury since its discovery by Tsountas in the early eighties, enough could be traced to support certain conclusions. The floor-scheme, with a border of stone slabs in megaron and prodomos and with a sidewise rather than a forward movement of the spacing, is much more like that of the Cretan palaces than of Tirvns, where the Greek, un-Minoan feeling for structure and coördination begins to appear. The general design is a checker-board marked off by dark red stripes into slightly irregular rectangles of three or four different ground colors, which follow each other in diagonal sequence. The patterns within the rectangles bear a marked relation to Egyptian ceiling decorations, which is due less to direct imitation than to a trade in textiles either between the two countries or between them both and Syria. The painted surfaces in both cases imitate an earlier use of textile coverings. There are several layers of painting on the floors and the once open court in front of the porch shows signs of having been roofed over and made into another room of about the same size as the megaron, in quite early times. The entire building lay in ruins, with no unstanding walls, at the time the Greek temple and the houses surrounding it were built.

Transportation of Marble for the Theatre of Delos.—In R. Ét. Gr. XXXII, 1919, pp. 240–250, G. Glotz restores a fragmentary inscription relating to the transportation of materials for the theatre at Delos (see B.C.H. XVIII, 1894, p. 162 ff.; Inscriptiones Deli, II, No. 203). It records payment for the carrying of 153 marble blocks of cubical shape, the dimension of which is one foot. These were probably intended for the stairways between the kerkides, above the diagona.

#### SCULPTURE

The Ludovisi Relief.—Certain early fifth century terra-cotta statuettes of Hera from the temple of Hera at Tiryns characterize her as a matron or the goddess of matronhood by a square of thick cloth held in front of the bare breasts. The cult of this Hera  $\tau\epsilon\lambda\epsilon la$  at Tiryns and elsewhere and a cult of Hera  $\pi a\rho\theta\ell\nu\sigma$  in Arcadia, are attested by Pindar and Pausanias, and with these traditions belongs that of the spring of Canathos at Nauplia, in which Hera bathed every year to regain her virginity. These bits of evidence have combined to convince S. Casson that Hera rising from her bath in the spring of Canathos is the subject represented on the Ludovisi "throne." The nude maiden playing the flutes and the draped matron scattering incense would then be symbolic of two aspects of her divinity. This interpretation does not profess to support any theory of the counterpart in Boston, the close relation of which to the Ludovisi relief is so far rather assumed than proved. (J.H.S. XL, 1920, pp. 137–142; pl.; fig.)

The Female Head from the South Slope of the Acropolis.—The identification of the beautiful but badly injured fourth century marble head of heroic size, in the National Museum at Athens, known only as "from the south slope of the Acropolis," is discussed by F. Studniczka in Jb. Arch. I. XXXIV, 1919, pp. 107–144 (35 figs.). The hair band brought low on the forehead and the traces of a garland of metal indicate a Bacchic connection, and the marks of the hands, laid one against the side of the head, the other on the top, suggest an Ariadne, but awake and seated, not reclining like the familiar statue of the Vatican. This position of Ariadne surprised by the approach of

Dionysus is seen in a group on a cameo in England and on vases, doubtless copied from the theatre, and corresponds with literary descriptions of the scene. The marble group may have stood under one of the small temple-like buildings which were erected along the Street of Tripods in the fourth century to support the bronze prize tripods.

The Statue of Aphrodite from Cyrene.—Two views of the very beautiful statue of Aphrodite found by the Italians at Cyrene in 1913 (see A.J.A. XIX, 1915, p. 107), are published with comments by E. A. GARDNER. The figure, lacking head and arms but otherwise uninjured, is of the Anadyomene type, representing the act of wringing out the dripping hair. It is a Hellenistic masterpiece, undoubtedly of the Alexandrian school. (J.H.S. XL, 1920, pp. 203–205; 2 pls.; fig.)

Aphrodite Anadyomene.—In R. Arch., fifth series, VIII, 1918, pp. 131–149 (fig.) W. Deonna discusses a marble group in the Dattari collection (Reinach, Répert. IV, p. 230, 4; Seymour de Ricci, R. Arch. 1907, ii, pp. 103 ff.), which represents Aphrodite Anadyomene with a smaller representation of herself at her right and, at her left, a small group of two children embracing each other. Other monuments—for the most part Gallo-Roman—offer parallels and furnish an explanation of this group of figures. The gesture of Aphrodite—wringing or binding her hair—symbolizes fertility. Here the goddess of fertility is protecting the nuptial pair. The group might be intended as a wedding present, though possibly, since Aphrodite is also a chthonic deity, it may have been meant to be deposited in a tomb. The connection between Gaul and the East is well known.

The Colonna Artemis.—In Ber. Kunsts. XLII, 1921, p. 87 (fig.) B. Schröder, in substantiation of his theory that the Colonna Artemis (No. 59 in the Berlin collection) is a copy of a fifth century work (see Jb. Arch. I. XXVI, 1911, pp. 34 ff.), illustrates a replica of the head, which is now set on another statue of Artemis in the Berlin collection (No. 63). The simplicity of its form, its sharpness of modelling, and its calm expression are characteristic of fifth century art.

Three Reliefs from Phalerum.—In R. Arch., fifth series, XI, 1920, pp. 1–81 (3 pls.), Theophile Homolle discusses three reliefs from Phalerum (Reinach, Rép. Rel. III, p. 346, 2, 3; p. 319, 3; A.J.A. IX, 1894, pp. 202–205, pl. xii; 1910, p. 501 f.; and frequently published elsewhere) and the interpretations proposed by other scholars. He concludes that the reliefs on the two sides of the stele dedicated by Cephisodotus are of different dates and were ordered for different reasons. There is no close connection in meaning between them. But the second of these reliefs, representing Artemis, Poseidon, Cephisus, and the nymphs, is closely connected in meaning with the relief dedicated by Xenocrateia, and both refer to the adoption by Cephisodotus of Xenocrateia's son Xeniades.

The Statue of "Polyhymnia."—In Jh. Oest. Arch. I. XVI, 1913, pp. 183-287 (14 figs.) W. Klein discusses the "Polyhymnia" of Berlin. The head is wrongly restored, as the Dresden head shows. The figure should face the right, as in the relief of Archelaus of Priene, not towards the spectator. The statue once formed part of a group consisting of Apollo and the nine Muses, copies of some of which still exist. The group dates from the third century B.C.

A Statuette of a Boxer.—In R. Ét. Gr. XXXII, 1919, pp. 149-157 (fig.) A. DE RIDDER discusses again a bronze statuette of an athlete which he described

in Bronzes antiques du Louvre, pp. 34-35 (pl. 19). The left forearm of the figure has been recovered since the date of the earlier publication, and marks on the hand indicate that it held a cestus. The athlete represented was, therefore, a boxer. The patina suggests that the provenance of the statuette was Magna Graecia. It is an eclectic work of the last years of the fourth century B.C.

#### VASES AND PAINTING

Agatharchus.—Some speculations on the art of Agatharchus, the young Samian artist who, in 467, painted the scenery for Aeschylus's Seven Against Thebes to look like real battlements and towers of a city wall, are published by J. Six in J.H.S. XL, 1920, pp. 180–189 (2 figs.). This striking work seems to have been the beginning of the art of realistic perspective among the Greeks. To the same artist may be ascribed the discovery that color effects are greatly heightened by the juxtaposition of contrasting colors. The basis for this study is largely in literary sources, but some monuments such as the town wall in the frieze of the Heroön at Gjölbaschi-Trysa in Lycia, are cited.

Ancient Vases in the Museum at Orleans.—In R. Arch., fifth series, VIII, 1918, pp. 1–51 (21 figs.) Madeleine Massoul describes and discusses the more interesting and important among the ancient vases in the museum at Orleans. These include:—Cypriote vases (second millennium B.c.), Cypriote vases (tenth to seventh century B.c.), an Island vase of Geometric style (ninth to eighth century), Mycenaean vases (twelfth to tenth century), vases from Camirus (seventh and sixth centuries), Corinthian vases, a Chalcidian vase, an Ionian vase (sixth century), Attic vases (sixth, fifth and fourth centuries), Italic vases, and Plastic vases, including vases decorated with reliefs. One black-figured Attic amphora has on one side Ajax and Achilles drawing lots in the presence of Athena, on the other four hoplites. A red-figured lecythus has a scene of battle, a red-figured cylix has in the interior a youth on horseback, another is adorned both within and without with scenes from the palaestra.

Late Attic Vases.—In Jh. Oest. Arch. I. XVI, 1913, pp. 141–177 (20 figs.) C. Watzinger examines certain vases of Meidias and points out the connection of vases of Aristophanes with them. The latter depict Giants and Centaurs and show close affiliations with the Phigaleia frieze. The earliest of these vases go back to about 420 B.C.; the later ones are earlier than 407 B.C. There is also a group of Apulian vases which have connection with them. Furthermore certain Pompeian wall-paintings of the Fourth Class (Death of Pentheus, and Heracles strangling the Serpents) are also to be associated with these vases. All of these monuments show the influence of a great painter of the latter part of the fifth century B.C. and the writer concludes that he can have been no other than Zeuxis.

#### INSCRIPTIONS

Inscriptions from Athens, Megara, and Tenos.—In R. Arch., fifth series, VI, 1917, pp. 1-67 (46 figs.), PAUL GRAINDOR publishes 16 inscriptions from Athens, 30 from Megara, and one from Tenos. The most interesting text is the one from Tenos, which gives the conditions of admission into a society at Tenos.

The "Sacred Law" of Delos.—In R. Ét. Gr. XXXII, 1919, pp. 167-178, F.

DÜRRBACH publishes the text of the  $l\epsilon\rho\dot{a}$   $\sigma v\gamma\gamma\rho a\phi\dot{\eta}$  of Delos, a part of which appeared in B.C.H. XIV, 1890, pp. 431–433 and 452. The text is accompanied by critical notes.

A Decree in Honor of Julia Domna.—In Jh. Oest. Arch. I. XVI, 1913, pp. 249–270 (5 figs.), A. von Premerstein discusses and restores the fragmentary Attic decree directing that certain cult honors be paid to Julia Domna.

### COINS

The Bull-Type on Coins of Magna Graecia.—Coins of a number of cities of Magna Graecia display the type of a bull, either in natural form, or androcephalic, or as a man with a bull's horns and ears. Giulio Giannelli, in R. Ital. Num. XXXIII, 1920, pp. 105–142 (figs.), traces the type from its origin (the river Acheloüs), points out the reasons for its adoption by the Italian cities that used it, and connects it with the religious cults of each locality.

The Octobols of Histiaea.—In a paper entitled *The Octobols of Histiaea* (Numismatic Notes and Monographs, No. 2; New York, 1921, American Numismatic Society; 25 pp.; 2 pls.; fig.; 12mo) E. T. Newell proves that the Histiaean octobols which show the local nymph seated on the stern of a ship, with a stylis in her left hand, are to be dated in the years 340–338 B.c., and not in the third century B.c.; and that the type is significant of the enthusiasm of the city for Athens in its brief period of liberation from Macedonian rule.

The Kyparissia Hoard.—E. T. Newell, introducing a series of papers on Alexander Hoards, has published a detailed description of thirty-five coins found a few years ago at Kyparissia, and now in the National Collection at Athens. The Alexander coins show that this hoard was not buried before 327 B.c., and probably not much later than this date. It probably belonged to "a Macedonian soldier who was stationed in the Peloponnesus after the unsuccessful attempt, in 330 B.c., of the Spartan king Agis to overthrow the Macedonian supremacy." (Alexander Hoards: Introduction; the Kyparissia Hoard; Numismatic Notes and Monographs, No. 3; New York, 1921, American Numismatic Society; 21 pp.; 2 pls.; 12mo.)

#### GENERAL AND MISCELLANEOUS

Mycenaean Costume.—Jh. Oest. Arch. I. XVI, 1913, Beiblatt, cols. 151-162 MARGARETE LÁNG discusses the costume of the Mycenaean woman.

The Phaestus Disk.—In Pal. Ex. Fund, LIII, 1921, pp. 29–49, E. W. Read attempts a new interpretation of the Phaestus Disk. He assigns arbitrary alphabetic values to the forty-five characters that occur in this inscription and by elaborate tables seeks to show that the combinations are such as could not occur in any real language, but only such as could be found in musical notation. He thinks, accordingly, that the signs do not represent syllables, or alphabetic sounds, but musical tones.

Lions in Greek Art.—In a dissertation entitled *Lions in Greek Art* (Bryn Mawr, Pennsylvania, 1920, Bryn Mawr College; 54 pp.; 8vo) Eleanor F. Rambo shows "that the historical types of the lion in early Greek art are not indigenous to Greece, but come to Greece from the East." The successive chapters deal with lions in Greek literature and language, in the painting, the sculpture, the coins, and the other minor arts of the Greeks.

The Death of Ariadne.—In R. Arch., fifth series, VIII, 1918, pp. 170–180, S. Reinach discusses the various accounts of the death of Ariadne and of her cult, with especial attention to the cult at Amathus. This leads to a discussion of the youths who took a female part, then of the covade or couvada in general, of the passage in Deuteronomy, xxii, 5, which forbids a woman to wear a man's clothing or a man to wear a woman's, and finally of the trial of Joan of Arc.

Pegasus, the Hippogriff, and the Poets.—In R. Arch., fifth series, XI, 1920, pp. 207–235, Salomon Reinach finds that the conception of Pegasus as the steed of poets is not ancient, but that this, as well as the hippogriff, is probably derived from a half line of Virgil, Jungentur iam grypes equis (Ecl. VIII, 27), and a line of Catullus (LV, 24), Non si Pegaseo ferar volatu. Ariosto, not Boiardo, invented the hippogriff.

**Prometheus.**—In R. Arch., fifth series, XIII, 1921, pp. 132–135 (2 figs.), Louis Tiret explains the myth of Prometheus as follows:—Prometheus is the block of wood in which fire is to be started by revolving a stick. The stick is revolved by a bow and its string. The block is held stationary, the stick is vertical, and the bow, extended horizontally, resembles an eagle with spreading wings (cf.  $\delta\epsilon\tau\delta$ s and  $\delta\epsilon\tau\omega\mu\alpha$  = pediment).

Sirens.—In R. Arch., fifth series, XII, 1920, pp. 110 f., Gabriel Ancey finds the key to the character and myth of the sirens in the word  $\sigma \epsilon \iota \rho \dot{\eta} \nu$ ,  $\sigma \epsilon \iota \rho \dot{\alpha} - \pi \lambda \dot{\epsilon} \gamma \mu \alpha$ , a cord or a twisted lock of hair, hence (as in Serbia) a maiden. Then the  $\sigma \epsilon \iota \rho \dot{\eta} \nu$  is transferred by metaphor to the foam of the waves. The Nereids are daughters of an all-knowing Proteus. The Sirens differ little from them. They are two, one knowing the future, one the past. The long hair leads to comparison with the story of Samson and Delilah.

Some Teachings of the Eleusniian Mysteries.—In R. Arch., fifth series, X, 1919, pp. 173–204, Salomon Reinach finds that Pausanias (II, 17, 4) refers to the Eleusinian Mysteries and especially to some myth connected with the pomegranate, which has not been handed down to us; that some other unknown myth was related touching the prohibition of beans; that the accusation of profaning the mysteries brought against Aeschylus had some connexion with an Egyptian doctrine that Artemis was the daughter of Persephone; that at Eleusis Dionysus, Demeter, and Persephone formed a triad; further that works of art were among the means employed in teaching the initiates; and that the teaching included, not only myths, but also moral doctrines.

## **ITALY**

#### ARCHITECTURE

Notes on the Palace of Diocletian at Spalato.—In Jh. Oest. Arch. I. XVI, 1913, Beiblatt, cols. 169–178 (4 figs.) G. von Stratimirović discusses Niemann's reconstruction of the prostasis of the mausoleum and the pronaos of the little temple in the palace of Diocletian at Spalato.

Drawings of Roman Buildings.—In R. Arch., fifth series, VI, 1917, pp. 213–230 (7 figs.), Henry Lemonnier publishes, with comments, some original drawings made by Antoine Desgodetz for his book, Les Édifices antiques de Rome (1676–1677). One drawing gives a section and a plan of the temples of Isis and Serapis (now lost), another some of the stucco ornaments of the

Colosseum, and others show interesting variations from the engravings in the book.

The Odeum at Catania.—In R. Arch., fifth series, XI, 1920, pp. 271–289 (4 figs.), Salvatore Mirone describes the odeum at Catania. This was a semicircular structure, with seats divided into cunei, but without diazomata. It had a roof. This building was probably first erected about 412 B.C., at the time of the Athenian occupation. Later it was neglected, but was repaired under Roman rule.

Roman Columns in Milan.—In Boll. Arte, XIV, 1920, pp. 84-96 and 171-184 (4 pls.; 10 figs.), C. Albizzati offers a detailed study of the columns that stand near S. Lorenzo Maggiore in Milan. It is shown that the present arrangement is not the original one of Roman times; but that the columns were set up in the Middle Ages, after the construction of the church, and that fragments from a peripteral temple of the second or third century, A.D. were used.

The Subterranean Basilica at the Porta Maggiore.—In R. Arch., fifth series, VIII, 1918, pp. 52-73 (7 figs.) Franz Cumont describes the subterranean basilica found in 1917 near the Porta Maggiore at Rome, and discusses especially its decoration. He concludes that the basilica was constructed not later than the first century after Christ for the celebration of the mysteries of the Pythagoraeans. Another article on this subject by the same author is found in Rass. d' Arte, VIII, 1921, pp. 37-44 (11 figs.)

#### SCULPTURE

Two Italic Reliefs in the Ny-Carlsberg Museum.—In R. Arch., fifth series, XII, 1920, pp. 169–184 (6 figs.), F. Poulsen discusses two reliefs in the Ny-Carlsberg Museum: (1) The Aegisthus relief (Glyptothèque Ny-Carlsberg, pl. III, Reinach, Rép. d. Rel. II, 183, 1), which Furtwängler (Antike Gemmen III, p. 266, fig. 140) rightly declared to be Italic, not Greek, and not archaic. It should probably be assigned to the third century B.C. The scene is incomplete. Either the murder of Clytemnestra or preparations for it should be added at the right of the existing relief. (2) The relief (Furtwängler, Antike Gemmen, III, p. 268; Glyptothèque Ny-Carlsberg, pl. IV B) representing the upper parts of three women and the head of an animal hitherto called a horse, but now called a mule. This relief is Italic, more specifically Roman, and may—since the existing relief is only a fragment—have represented a scene of a mule race, perhaps the Consualia, at which horses and mules ran without drivers or riders.

Roman Reliefs in Herberstein, Styria.—In Jh. Oest. Arch. I. XVII, 1914, Beiblatt, cols. 185–202 (10 figs.) W. von Semetkowski describes fifteen Roman reliefs in the church of St. John in Herberstein, Styria. The most important represent a lion attacking a deer, and three Centaurs fighting a lion and a lioness. The latter, which is 0.35 m. high and 1.94 m. long, is full of spirit. Perseus and Andromeda are crudely represented on another relief.

A Hunting Monument of the Emperor Hadrian.—The eight round reliefs which are in the corners over the small arches of the Arch of Constantine in Rome have been recognized and discussed as of the time of Hadrian, and their content and original disposition are studied in detail by H. Bulle in Jb. Arch. I. XXXIV, 119, pp. 144–172 (10 figs.). They form a series commemorating the Emperor's feats in the hunting of big game during his journeys to all parts of

the Empire in the years 119–134 A.D., with the departure from and return to Rome, and include dedications of the spoils to various divinities. The subordinate personages in the groups can be approximately identified, in some cases as portraits. The reliefs would be most appropriately placed on the inner side of an altar-enclosure similar to that of the Great Altar at Pergamon or the Ara Pacis of Augustus. In style they are descended from the Pergamene frieze of Telephus, but the round form is derived from the custom of hanging dedicated shields on the walls or friezes of temples.

A Bust of Constantine II.—In R. Arch., fifth series, X, 1919, pp. 51–58 (pl.; 9 figs.), Jules Maurice argues that the bust at Arles (Bernoulli, Römische Ikonographie, I, p. 121) called a bust of Marcellus really represents Constantine II, who was born at Arles, August 7, 314 (not 317) a.d. General historical considerations and also comparison with coins support the view that the bust represents Constantine II.

Imitations of the Bacchic Reliefs in the Casino Borghese.—In Jh. Oest. Arch. I. XVI, 1913, pp. 208–211 (2 figs.) C. Huelsen calls attention to various reproductions by artists of the fifteenth and sixteenth centuries of different figures of the Bacchic reliefs in the Casino Borghese (see A.J.A. XVIII, 1914, p. 233).

#### INSCRIPTIONS

An Inscription from Murgantia.—In R. Arch., fifth series, XII, 1920, pp. 40–46, Jean Colin discusses the inscription C.I.L. IX, 147\*, which Mommsen, followed by others (e.g. Sandys, Latin Epigraphy, p. 204), regarded as a forgery. All the irregularities which have led to the rejection of this inscription are paralleled in other inscriptions of undoubted genuineness. This inscription also must, therefore, be accepted as genuine.

The Inscription on the Column of Trajan.—In R. Arch., fifth series, XII, 1920, pp. 245-248, Ch. Bruston finds that the current reading of the inscription on the base of the column of Trajan. . . . ad declarandum quantae altitudinis mons et locus tant [is oper]ibus sit egestus, is incorrect. The restored words should be tantis opibus, and the meaning is "to declare that as great as is the height of a mountain, by the expenditure of so great riches the place also was cleared," i.e., the Emperor was so generous as [to build the forum, etc.] and also to spend a mountain of money to clear the place for it.

## COINS

Asses of C. Clovius and Q. Oppius.—Pompeo Bonazzi, arguing in detail on grounds of fabric, palaeography, chronology, and analogy with other coins, would assign the as of C. Clovius (Babelon I, p. 366), known by about 120 examples, to a mint of Gallia Cisalpina, when Clovius was governor of that province; and of the two asses of Q. Oppius (Babelon II, p. 276; Bahrfeldt Nachträge III, p. 151), the former, known by fifty examples, to a Sicilian mint (Syracuse?), the latter, known by five examples, to one in Spain (Corduba). (R. Ital. Num. XXXIII, 1920, pp. 143–158 (pl.).)

Early Roman Denarii.—A find of 33 denarii and five quinarii at Orzivecchi (Brescia), described in detail by P [ompeo] B [onazzi] in R. Ital. Num. XXXIV, 1921, pp. 67–68, owes its interest to the locality of its discovery, joined to the fact

that all the coins are of the types usually assigned to a period no later than substantially the third century B.C. The concealment of the hoard is naturally dated as the time when Rome reëstablished her power in Cisalpine Gaul after the Second Punic War (say 200–190 B.C.).

"Restored" Coins of Titus, Domitian, and Nerva,—Under the title "Restored" Coins of Titus, Domitian, and Nerva, H. Mattingly points out that the Flavians wished by this series of "restored" coins to link their dynasty up with the Caesarian founders of the empire. The restorations were confined to the coinage in copper in order to unite senate with emperor in the act of declaration of continuity. The selection of personages was made in accordance with official judgment of their meritorious character. A list of all known examples of coins restored in the three reigns is appended, correcting many errors and omissions in Cohen and Gnecchi (Num. Chron. 1920, pp. 177–207).

Two Medallions of Lucilla.—GIOVANNI PANSA would interpret the reverse type on the medallion of Lucilla (Gnecchi II, p. 51, No. 10) as the presentation of the three sons of the empress to a protectress divinity of infancy (Juno? Venus?). The reverse type on the other medallion (Gnecchi II, p. 51, and pl. 76, No. 8) he would read as a rite of magic lustration for infancy, derived from the Eleusinian mysteries (R. Ital. Num. XXXIII, 1920, pp. 159–168; figs.).

## GENERAL AND MISCELLANEOUS

Archaeology and Philology.—The relations between archaeology in Italy and classical philology are discussed by G. Laing in *Cl. Journ.* XVI, 1921, pp. 451–463.

Maritime Archaeology of Pompeii.—In Neapolis, I, 1914, pp. 353-371 (pl.; 6 ·figs.) Luigi Jacono publishes some notes on the maritime archaeology of Pompeii: (1) a new suggestion regarding the coast line of the port of Pompeii; (2) studies of ancient piscinae, showing that in the period covered by the last years of the Republic and the first two centuries of the Empire the coast did not sink more than 0.50 m.; (3) the identification of fishes represented in a mosaic of Casa 38 at Pompeii (Not. Scav. 1910, p. 556).

The Prohibition of Mining in Italy.—In R. Arch., fifth series, X, 1919, pp. 31–50, Maurice Besnier discusses the prohibition of mining in Italy under the Republic (Pliny, N. H. III, 138, XXXIII, 78, XXVII, 77). The lex censoria limiting the working of the gold mine of Victimulae and the senatus consultum prohibiting mining in Italy are both assigned to the time of the Gracchi. The purpose was to prevent a servile insurrection and also to prevent the speculations of the publicans in Italy and to turn their attention to the mines of Spain. The opposing views of other scholars are refuted.

The Sale of the Effects of Commodus.—In R. Arch., fifth series, XII, 1920, pp. 249–268 (fig.) Salomon Reinach discusses the sale of the personal property of the murdered Emperor Commodus (Dion Cassius LXXIII, 5; Aelius Lampridius, Alex. Severus, chap. XLI; and especially Julius Capitolinus, Pertinax, chap. VIII). Besides clothing, armor, personal ornaments, furniture, and slaves, there were carriages perplexis diversisque rotarum orbibus and exquisitis sedilibus, i.e., with seats which turned on an axis, so that the occupant could face a breeze, avoid the sun, and the like. Other carriages were iter metientia and horas monstrantia, i.e., were equipped with hodometers and clocks, like

modern automobiles. Heron of Alexandria (who lived, probably, about the time of Marcus Aurelius and Commodus) invented a hodometer which worked with cog-wheels and is here described and illustrated. The clocks in the carriages were water-clocks. Many ancient inventions were lost because they were not protected by law and were, therefore, of no commercial value, and also because the presence of slaves made them unnecessary.

Trade in Lead in Roman Times.—In R. Arch., fifth series, XII, 1920, pp. 211-244 (5 figs.), Maurice Besnier begins a study of the lead trade in Roman times. Ingots of lead were inscribed with the names of emperors and numerical signs. Two of Sardinian origin are known and about sixty each from Spain and Great Britain. The mines of southwestern Sardinia were worked under Hadrian and later. They belonged to the Emperor. They were probably known to the Carthaginians and the Greeks. Lead and silver were produced very early in Spain. In Roman times the most important mines were in southwestern Spain, though others were in Lusitania. Carthagena was the chief place of export. The Spanish stamped ingots belong to the end of the Republic and the beginning of the Empire. Ibid. XIII, 1921, pp. 36-76 (6) figs.), the British production and the exports to Gaul and Germany are discussed. Lead was found in Somerset (Mendip Hills), and ingots from this source date from the reign of Claudius to that of Marcus Aurelius and Verus (49-ca. 169 A.D.). These mines were imperial property. Other mines were in Shropshire, near Shelve (Stiper Stones), in Flintshire, near Holywell, and in Derbyshire. These all belonged to the Emperor. They were worked during the first, second, and third centuries. In Gaul lead was produced in the eastern Pyrenees, the Cevennes, and the Alps, but nearly all the ingots found in Gaul and in Germany were imported from Great Britain or from Spain.

#### SPAIN

Representation of Iberian Weapons.—In R. Arch., fifth series, VI, 1917, pp. 68-74 (2 figs.), H. Breuil discusses the weapons represented in the reliefs of the arches of triumph at Carpentras, Orange, and Avignon, and one similar monument at Narbonne, Béziers, and Tauroentum. Swords of Iberian type and falcatas seem to indicate that the victories commemorated belong to a time earlier than the victories of Marius over the Cimbri and Teutones in 102 and 101 B.C., though the inscriptions on the monuments are much later.

The Painted Pottery of Emporion.—In R. Arch., fifth series, VI, 1917, pp. 75–94 (9 figs.), P. Paris discusses the Iberian pottery of Emporion (Ampurias). Geometric patterns, vegetable ornamentation, and imitation of the drawings on Greek black-figured vases are distinguished. There was no "school" of Emporion; in fact, the painted pottery seems to have been, for the most part, imported.

The Bas-reliefs of Marquinez.—In R. Arch., fifth series, XIII, 1921, pp. 25–32 (fig.), H. Breuil discusses the carvings at Marquinez (Alava) in a grotto called Santa Leocadea. He finds that this grotto and others of the same sort, which are very numerous in the region, are, like similar grottoes in southern France, to be ascribed to the times after the fall of the Roman Empire, not to the Aeneolithic period.

Saguntum.—In R. Arch., fifth series, XII, 1920, pp. 50-81 (4 figs.), PIERRE PARIS gives a description of Saguntum (Murviedro) and a sketch of its history in ancient and more recent times. There seem to be no remains earlier than Roman times, except some traces of a "cyclopean" wall. There are remains of the Roman fortifications and considerable remains of the theatre. Very few inscriptions have been found, and the stamped pottery unearthed here is very likely not of local manufacture. The Saguntine pottery mentioned by Juvenal and Martial seems to have been coarse ware.

## FRANCE

Tiles and Bricks of Roman Gaul.—In R. Arch., fifth series, XII, 1920, pp. 189–210, Adrien Blanchet calls attention to the importance of a knowledge of the sizes and qualities of tiles and bricks employed at different times and places. He gives a list of the dimensions of Gallo-Roman bricks and tiles found and measured in many different places in France. Apparently such materials were not made with special reference to the particular building in which they were to be used. In general, Gallo-Roman bricks are of finer clay than mediaeval bricks, which are likely to contain coarse sand.

## SWITZERLAND

The Treasure of Fins d'Annecy.—In R. Arch., fifth series, XI, 1920, pp. 112-206 (10 figs.), W. Deonna publishes and discusses a treasure found in 1912 at the Fins d'Annecy (ancient Boutae), near Geneva, and now in the museum at Geneva. The treasure consists of four coins, three silver pins, two silver rings, two silver statuettes, and a silver patera. The patera was turned upside down and the other objects were covered by it. The coins are: a bronze of Tiberius, a silver coin of Marcus Aurelius, a silver plated coin of Maximinus and a silver plated coin of Gordianus. The treasure was hidden probably in the third century. Of the rings, one has the inscription VITIA (probably meant as a reversible inscription vita), the other a male head between the letters Δ and S (really the triangle and the double curve, both of which are ancient symbols). The heads of the pins are: a beardless herm, a pine cone, and an acorn. One of the statuettes is a Venus Anadyomene, the other a satyriscus. The bottom of the patera is decorated with a rosette surrounded by a circle with rays, the whole being a solar symbol. In the interior the centre is occupied by a profile head of Augustus (laureate) and the words Octavius Caesar. About this centre are the following:—Apollo and the Python, Apollo and the Cyclopes, Apollo and Neptune building the walls of Troy, Mercury seated, Apollo between an altar and a temple, and the inscription ACTIVS. About all this is a serpent. These reliefs are compared with those of Phoenician or Cypriote paterae, connexion with the Pergamene school of sculpture is noticed. coins of Augustus are compared, the correspondence of the patera with Propertius, IV, 6, Horace, Od. IV, 5, and passages from Virgil and Ovid is shown in some detail. The patera speaks plainly of the deification and worship of Augustus; it celebrates his victories, especially that of Actium, and alludes to the identification of Augustus with Apollo and with Mercury. It was made, probably by a Gallo-Roman artisan, not much before or after the beginning of the Christian era.

## GREAT BRITAIN AND IRELAND

Stonehenge.—In The Nineteenth Century, April, 1920, p. 678, Hadrian Allerroft maintains that the monument at Stonehenge can hardly be earlier than 300 B.c. It is probably identical with the "temple of Apollo" mentioned by Hecataeus of Abdera as existing on an island of the Hyperboreans, who may be identified with the Cimbri, Cimmerii, Cymru, etc. Tacitus (Germ. 37) attributes to the Cimbri castra ac spatia, as monuments of their power. (S. R., R. Arch. XII, 1920, p. 109.)

The Petroglyphs of Ireland.—In R. Arch., fifth series, XIII, 1921, pp. 75–78, H. Breul makes seven divisions of the rock sculptures of Ireland. The art of these sculptures is connected with Galicia, Brittany, and Scotland. The author intends to publish, in collaboration with Professor Macalister of Dublin, a detailed account of their joint researches.

## NORTHERN AFRICA

The Ram of Baal-Ammon.—In R. Arch., fifth series, XIII, 1921, pp. 79–107 (10 figs.), Eusèbe Vassel discusses the use of animal figures, especially the ram, in Punic art, and reaches the following conclusions:—(1) The animals on the Punic stelae of Carthage are indubitably divine attributes raised to the rank of symbols. (2) The ram is at Carthage the attribute and symbol of Baal-Ammon, as he is attribute and symbol of Zeus Ammon in the Cyrenaica and of Amon at Thebes. (3) The three divine types are often confused and they flow from a common source of totemic nature. (4) That source must be sought in Libya or in Egypt. (5) The probabilities seem to be in favor of Libya.

The Harbors of Carthage.—In R. Arch., fifth series, XI, 1920, pp. 373-374, Cecil Torr replies briefly to some criticisms of his views which were expressed by Dr. L. Carton, ibid. IX, 1919 (Mai-juin). Dr. Carton replies ibid. XIII, 1921, pp. 143-146, adding that he has discovered the fountain of a thousand amphorae (cf. C.R. Acad. Insc. 1920, pp. 258-268), has followed a cyclopean wall at the baths of Antoninus, and has found a stele with a man praying before the walls of Carthage, a Corinthian capital (the only one known from the baths) etc. Ibid. pp. 146-148, Dr. Carton, replies to some remarks made by Camille Jullian (R. Ét. Anc. XXII, 1920, p. 236).

Magical Inscriptions Explained through Hebrew.—In R. Arch., fifth series, X, 1919, pp. 28-30, Ch. Bruston explains the Latin and Greek letters on a tablet found at Sousse, Tunisia (Bulletin Archéologique, 1910, p. 142) as transliterations of Hebrew words. The tablet as a whole is intended to insure the defeat of a chariot-driver. Ibid. XII, 1920, pp. 47-49, the same author interprets a talismanic stone found at Carthage and published in the Bulletin Archéologique, 1910, p. 142. It represents the god |AO, with the head of a

cock, holding in one hand a whip, in the other a shield. His legs are replaced by serpents. On the other side of the stone is the inscription

ΘωΒΛ PEAIAω IωCEBH

After which is "a sign like a Z with open angles and barred," then "three other similar signs crossed by a horizontal line," then "a square crossed by two diagonals." The Greek letters may be rendered from Hebrew, "Happiness to the friend (s?) of Iaho who dwell," and the other signs may signify unity, the number three, and the number four. Then the whole means "Happiness to the friend (s?) of Iaho who dwell near the One, the Three, and the Four," i.e. God and the seven archangels.

Carthaginian Amulets.—In R. Arch., fifth series, X, 1919, p. 224 f., Ch. Bruston proposes readings for the two amulets reproduced *ibid*. IX, 1919, p. 365 (after Bull. Arch. 1916, p. 136):—(1) Bicit te Leo de tribu Iuda, avis (the owl, represented on the amulet), and, reverse, Invisa, invidiosa, invicta, devastator avis, quis ne non tu[um] flagellum fecerit totum fran[gi?] (2) Vincit Leo de tribus Iuda, Radis D[avid], inscribed about an owl, and, reverse, Invidia invidiosa nihil tibi, at, anima pura et munda, Micael, Rafael, Uriel, G(a)briel Victoria.

## EARLY CHRISTIAN, BYZANTINE AND MEDIAEVAL ART

#### GENERAL AND MISCELLANEOUS

Trefoil Plan in Byzantine Architecture.—In R. Arch., fifth series, XI, 1920, pp. 82–111 (22 figs.), L. H. Vincent discusses the origin of the trefoil plan (and, incidentally, of the cruciform plan) in Byzantine architecture. Without attempting a definite proof, he shows that the influence of Constantinople and its court is the most probable reason for the popularity of this plan in the fifth century A.D. and even earlier.

The Church of the Holy Sepulchre.—In *The Antiquaries Journal*, I, 1921, pp. 3–18 (pl.; 3 figs.) A. W. Clapham gives a sketch of the history of the successive buildings on the site of the Holy Sepulchre in Jerusalem, and describes in detail the existing remains of the Latin monastic buildings of the twelfth century. The description is accompanied by plans of the several churches, and by a large colored plan indicating the date of each part of the present structure.

An Early Christian Ivory Relief.—In Burl. Mag. XXXVIII, 1921, pp. 178–195 (4 pls.), E. Maclagan publishes a fragment of an ivory relief with figures from a representation of the Miracle of Cana which clearly belongs to a series (most of the twelve pieces are in Milan) of plaques about whose origin there has been much dispute, some placing it as sixth century work done in Egypt, others considering it eleventh century work of southern Italy. The new relief, recently acquired by the South Kensington Museum, indicates, with its unmistakable classical spirit, that the former theory is the correct one; and it sup-

ports the traditional view that the series of reliefs were carved to decorate the lost chair of St. Mark in Grado.

Archaeological Investigations in Constantinople.—In a brochure entitled Mission Archéologique de Constantinople (Paris, 1921, Leroux; 74 pp.; 40 pls.; 6 figs.; 8vo) Jean Ebersolt reports the results of his studies in Constantinople in 1920. He describes: (1) the imperial sarcophagi at Tchinili-Kiosk, (2) the ruins of the great palace of the Byzantine emperors, brought to light by the fire of 1912, (3) the mosque of Arab-Djami and its Byzantine sculptures, (4) a number of unpublished or little-known Byzantine inscriptions, (5) thirty-five manuscripts seen by him in the library of the Seraglio, a list of which supplements the catalogue given by Ouspensky in L'Octateuque du Serail.

The Church of the Apostles at Constantinople.—In Jh. Oest. Arch. I. XVI, 1913, pp. 212–230 (8 figs.) R. Egger discusses the Church of the Apostles erected by Constantine in Constantinople, in which he was afterwards buried.

Tapestries.—The golden age of tapestry weaving, when the art was followed in its legitimate realm, that of two-dimensional decoration, is well represented in the present textile exhibition at South Kensington, discussed by F. Birrell in Bur. Mag. XXXVIII, 1921, pp. 166–172 (3 pls.). Two of the finest specimens are the famous Falconry, lent by the Musée des Arts Décoratifs, and the Bear-Hunting, lent by M. Demotte.

The Legend of St. Christopher.—In Gaz. B.-A. III, 1921, pp. 23–40 (9 figs.), G. Servières traces the development of the legend of St. Christopher in art, and the reasons for its popularity. The type soon became so firmly fixed that all artists of whatever nationality represented the same moment in the legend and conformed in the principal details of the composition to the same form and arrangement.

Early Engravers.—In Jb. Preuss. Kunsts. XLI, 1920, pp. 189–207 (2 pls.; 5 figs.), M. Lehrs writes on a number of primitive copper engravers, supplementing his book which appeared in 1908 on the history of German, Flemish, and French copper engravers of the fifteenth century.

#### ITALY

Early Italian Sculpture.—In Burl. Mag. XXXVII, 1920, pp. 77–78 (2 figs.), M. H. Longhurst discusses the style of a fragment of a marble font lately presented to the Victoria and Albert Museum. The similarity of the figures to some in Parma and Modena is sufficient to assign its origin to that district and to date it about 1200. The work is apparently by a provincial sculptor influenced by Antelami and his followers.

Early North Italian Sculpture.—In Mh. f. Kunstw. XIV, 1921, pp. 1-13 (10 figs.), E. Gall takes the old relief of Apostles in the cathedral at Milan as the basis for a study of late twelfth century sculpture in Northern Italy and its relation to the work of Provence. The apostle relief is apparently the one referred to by documents as one belonging to the period of the archbishop Hubert von Crivelli; hence the date of its origin must lie between 1185 and 1187. The style also agrees with other sculpture of this period, e.g., that of the ciborium in S. Ambrogio, Milan, and some examples in Modena. The atelier in Modena from which came the master of the Milan apostle relief and his great contemporary, Antelami, was apparently the bearer of the Provencal

influence which became evident toward the end of the seventies of the twelfth century. The apostle relief must originally have decorated a lecturn in the old cathedral.

Early Pisan Sculpture.—Three pieces of sculpture in the Blumenthal collection, New York, which may be attributed to Niccolà and Giovanni Pisano, are published by S. Rubenstein in Art in America, IX, 1921, pp. 109–119 (4 figs.). A beautiful seated Madonna shows the unmistakable characteristics of Niccolà and represents him at his best. The less detailed, more intimate style of Giovanni is evidenced in a standing Madonna and the bust of a young woman; the latter is a fragment from the cathedral of Siena.

A Madonna by Giovanni Pisano.—In Dedalo, I, 1920, pp. 361–363 (fig.), I. B. Supino publishes a Madonna represented in a collection of photographs made some years ago. The style is clearly that of the Pisan school and quite as certainly that of Giovanni di Nicola himself. The period of its execution must lie between that of the group of the Cappella Scrovegni at Padua and the Pisan pulpit. The location of the sculpture, however, is unknown, and the writer is acquainted with the work only from the photograph.

The Camposanto at Pisa.—In Dedalo, I, 1920, pp. 311-321 (20 figs.), P. Bacci distinguishes two sharply differentiated styles in the sculptural decoration of the façade of the Pisan camposanto. The first of these represents the work of a realist; the heads are strongly modelled, the eyes are made more realistic through indication of the pupils and irises by incisions and the provision for the insertion of glass, and all the features are so sharply individualized as to leave no doubt that the heads were the portraits of kings, queens, archbishops, etc. The second style, which follows that of Giovanni di Nicola Pisano, is much more generalized, the bulbous eyes have no indication of pupils or irises, and the smooth features present types rather than portraits.

Tino di Camaino.—In Rass. d'Arte, VIII, 1921, pp. 73-84 (pl.; 9 figs.), P. Baccı gives some biographical data, in which a new document figures, concerning Tino di Camaino. The tomb of Arrigo VII in the cathedral at Pisa is made a special object of study. It is shown that instead of Tino's having merely begun the work, as has been supposed, he executed the splendid reclining figure of the emperor and the frieze of Apostles.

Signess Paintings in American Collections.—In Art in America, VIII, 1920, pp. 272-292 and IX, 1920, pp. 6-21 (10 pls.), F. M. Perkins publishes the second and third parts of his discussion of early Sienese paintings in America. To an anonymous follower of Simone Martini he assigns the beautiful Adoration of the Magi in Mr. Lehman's collection. Despite recent suggestions to the contrary, the little Crucifixion in the Museum of Fine Arts, Boston, is again attributed to Lippo Memmi, and a St. Stephen in the Blumenthal collection is attributed to his school. Lippo di Vanni, in his characteristics not as a follower of the Lorenzetti, but as an imitator of Lippo Memmi, is well represented in four panels of the Madonna and Saints in the Lehman and Blumenthal collections. Some clarification of the characteristics of Luca Tommè is arrived at through a study of his Madonna in the Blumenthal collection, which has been ascribed to Bartolo di Fredi. For the study of Taddeo di Bartolo and his school there is good material in the collections of Mr. Platt, Mr. Blumenthal, and Mr. Davis. And, finally, Sassetta and his followers are considered in the present article as represented in their paintings in the Lehman, Johnson, and Fogg Museum collections.

#### FRANCE

Burgundian Sculpture of the Twelfth Century.—In spite of documentary evidence to the contrary, it has commonly been held that the beautiful capitals of the abbey of Cluny belong to the twelfth century. But that they must have been done in the preceding century is shown by A. K. PORTER (Gaz. B.-A. II, 1920, pp. 73–94; 22 figs.) in tracing their influence upon Burgundian sculpture elsewhere from the very beginning of the twelfth century. And the influence of these and other sculptures of Cluny was much more far reaching, extending even to Lombardy and Spain.

The Cathedral of Poitiers.—A description of the sculptures on the west façade of the cathedral of Poitiers and an analysis of the influences evident in them are given by E. Maillard in Gaz. B.-A. II, 1920, pp. 289–308 (11 figs.). The great variety of styles in this comparatively small group of sculptures, the only one to be seen in Poitou today, can be accounted for only when we recognize that these are only a few of the innumerable sculptures that formerly adorned not only this cathedral but many parochial churches of the region; nearly all have been destroyed in the course of the centuries.

The French Cathedrals and their Makers.—In R. Arch., fifth series, XI, 1920, pp. 290–362, XIII, 1921, pp. 77–95 (4 pls.), F. DE MÉLY, by means of inscriptions and manuscript records, establishes the names of a great number of architects, sculptors, and other artists who were employed in creating the great cathedrals and other mediaeval churches of France. The notion that the artists of the Middle Ages did not sign their works and were not recognized as individuals is abundantly disproved by unimpeachable evidence. In many instances families or "dynasties" of artists seem to account for resemblances between works which are sometimes widely separated.

The Cathedral of Reims.—The recent publication of a splendid album of the Cathedral of Reims, with introduction and notes by M. P. Vitry, leads to a number of observations by E. Male in Gaz. B.-A. III, 1921, pp. 73–88 (13 figs.). The most important one concerns the architects of the cathedral; from a study of a sixteenth century drawing of the old labyrinth of the cathedral it is concluded that there was represented in the centre of the labyrinth a fifth, and the principal, architect, rather than the bishop. The name of this master architect is unknown, but his existence explains the fact that to the other four architects documents ascribe work only on the upper parts of the building. In the latter part of the article an interpretation of the subject matter of some of the sculpture is given; and an estimate is made of the influence of the earlier sculpture of Chartres cathedral upon that of Reims, and of the latter upon the sculpture of Chartres.

Adam.—In R. Arch., fifth series, XII, 1920, pp. 338 f., W. Deonna inter-

prets the letters  $D_{\underline{A}}M$  on the keystone of the vault of the cathedral at Poitiers

(twelfth century) as the name of the first man, not, as interpreted by F. de Mély (*ibid*. XI, 1920, p. 350) of an architect. The arrangement of the letters symbolizes the four regions of the world.

Bronzes by Nicholas of Verdun.—In Burl. Mag. XXXVIII, 1921, pp. 157–166 (3 pls.), H. P. MITCHELL discusses two bronze figures of Moses and a Prophet in the Ashmolean Museum, Oxford. A study of their style shows that

they are the work of Nicholas of Verdun in about 1180, and there are good reasons for believing that they originally formed part of that artist's decoration of the ambo in the abbey-church of Klosterneuburg near Vienna.

Thann.—In Gaz. B.-A. II, 1920, pp. 43–59 (pl.; 11 figs.), C. Champion traces the history of the village of Thann in Alsace and describes its most interesting monuments. The finest building is the church, with its richly sculptured great portal of the thirteenth century and its smaller, flower-like portal of the Virgin dating from the fifteenth century. Obernai, with its picturesque Hôtel de Ville and other municipal and private buildings, is the subject of a second article (*Ibid.* pp. 195–208; pl.; 10 figs.).

## BELGIUM AND HÖLLAND

A Fifteenth Century Dutch Sculptor.—In Jb. Preuss. Kunsts. XLII, 1921, pp. 20–32 (pl.; 9 figs.), T. Demmler gives a critical study of the work of Nicolaus Gerhaert von Leyden. The strongest determining influence in his development seems to have come from the northern Netherlands. Though we have little remaining sculpture of that region to compare with him, the painting readily shows the connexion, e.g., the Van Eyck altarpiece. Nicolaus Gerhaert's art is particularly significant for Germany, because he worked in so many places, Oberrhein, Ulm, Nürnberg, etc., influencing other artists with his fresh observation of nature and his ability to give a nobler turn to the inherent realism of northern art.

The Ghent Altarpiece.—In Gaz. B.-A. III, 1921, pp. 108–118 (2 pls.; 6 figs.), L. MAETERLINCK studies the authorship of the retable of the "Mystic Lamb" through an investigation of preceding and contemporary painting in Ghent. It is found that this polyptych is entirely characteristic of the work being done in Ghent at the time of the Van Eycks and, hence, that there is no reason for assigning its origin to Holland. That the work is not to be exclusively attributed to the two Van Eyck brothers is concluded from documentary evidence that they had many assistants in their studio, that Hubert employed not only painters, but goldsmiths, sculptors, engravers, and even workers in glass.

## **GERMANY**

Romanesque Sculptures of the Upper Rhine.—Foreign influence that largely determined the style of the art of the upper Rhine in the second half of the twelfth century is evident in monuments published by G. Weise in Mh. f. Kunstw. XIII, 1920, pp. 1–18 (8 figs.). To the master who made the tympanum of the portal of the church of St. Gall at Basle and who displays many North Italian and French characteristics belongs a tympanum of the church of St. Morand; the former work is thought to date before 1185, the latter about 1200. An independent master did work for the abbey church at St. Ursanne and the Nicholas chapel of the cathedral at Freiburg. Related works of the twelfth and thirteenth centuries are in the churches at Egisheim and Petershausen.

A Fourteenth Century Pietà.—In Z. Bild. K. XXXII, 1921, pp. 87-92 (7 figs.), W. Noack writes on a large wooden group of the Pietà, which, because of its isolation in the Ursula cloister at Erfurt. is but little known. The work

is closely similar in every superficial detail, at least, to two other representations of the subject, one in Coburg, the other in Leubus. But the three are very different in spirit. The Coburg group, dating about 1330, is a decade older than that at Erfurt and retains more of the thirteenth century monumental feeling and restraint. The Leubus group is more than a decade later and has less strength and significance.

A Romanesque Altar-cloth.—In Ber. Kunsts. XLII, 1921, pp. 71–76 (3 figs.), Otto von Falke describes a Romanesque altar-cloth of white linen, with ornament of the same material, recently acquired by the Kunstgewerbemuseum in Berlin. On the ends of the cloth, which hung over the ends of the altar, are represented the Annunciation and the Visitation; on the other the Nativity and the Adoration of the Magi; while the centre of the cloth had two panels, one of which showed the Women at the Tomb and the other the Ascension. This work, which is not only the finest, but the earliest of its class, is said to have been found in a monastery near Fulda. The resemblances of style which it exhibits to the velum pictum of the Apostelkirche in Cologne and to other works of the Rhenish school prove that it is to be attributed to that school. It was made in the latter half of the twelfth century.

Swabian Wood-carvings.—In Ber. Kunsts. XLII, 1921, pp. 59–62 (3 figs.) J. Baum discusses wood-carvings on shrines by Swabian artists of the thirteenth and fourteenth centuries, with special reference to a group representing Christ crowned with thorns, acquired for the Kaiser Friedrich Museum in 1900. A fragment in Stuttgart from a representation of the Death of the Virgin, and a Deposition found in the Schnell collection in Rarenberg are similar in style, and it is probable that these two fragments and the Berlin piece were parts of one carved altar, made in the region of Lake Constance about 1350.

## GREAT BRITAIN AND IRELAND

English Fifteenth Century Embroidery.—In Burl. Mag. XXXVIII, 1921, pp. 74–81 (2 pls.), P. Turpin, publishing two important pieces of embroidery in the Lille museum, which he classes as fifteenth century English work, calls attention to the importance of details in determining the school from which embroidery of this period comes. Technique, textile materials, and general appearance give scarcely any aid in such identification, because, all over Europe the technique spread from one monastery to another and the general forms, borrowed from illuminations, show the same mixture of Flemish and Italian influences. Iconographical and decorative details that were considered sufficiently insignificant to be left to the individual artists are the surest means of identification.

Irish Miniatures at St. Gall.—In R. Arch., fifth series, XIII, 1921, pp. 1-6 (pl.), JEAN EBERSOLT describes very briefly the miniatures in several manuscripts of Irish origin in the library of the monastery of St. Gall, and discusses the Crucifixion and the Last Judgment at the end of manuscript 51. These two miniatures follow Eastern, not Byzantine, iconographic traditions, but their style is Irish. As early as the seventh century the Irish monasteries were in regular connection with monasteries in the East.

## RENAISSANCE ART

#### TTALY

A Bronze Statue by Michelangelo.—The bronze figure in the Louvre labelled "Jason or Apollo, Italian school, sixteenth century . . . " is attributed by J. Six in Gaz, B.-A. III, 1921; pp. 166-176 (6 figs.), to Michelangelo. subject is probably Apollo vanquishing the serpent Python, and the problem of movement in which the artist is here interested is almost the same as that which occupied him in his Bacchus, David, marble Apollo in Florence, and some other works.

Frescoes of the Capella Garganelli.—In L'Arte, XXIII, 1920, pp. 275-278 (2 figs.), G. Zucchini gives an account of the frescoes by Cossa and Ercole da Ferrara which formerly decorated the Garganelli Chapel in the cathedral at Bologna, were only partly saved when the chapel was destroyed in 1606, and were completely destroyed in the middle of the nineteenth century, so that only partial copies now remain to give an idea of the work, which was so highly valued by Michelangelo that he said the chapel was worth half of Rome.

An Assumption of the Virgin by Turino Vanni.—In R. Arch., fifth series, VI, 1917, pp. 231-233 (fig.) B. Berenson publishes a panel in the museum at Bayeux. This is probably the upper part of a taller panel. The lower part, now missing, showed the apostles standing around the empty tomb of the Virgin, with Thomas reaching up for the girdle which she drops. The Virgin is seated in a mandorla which is surrounded by angels. Above the mandorla is the upper part of the figure of Christ who holds up the mandorla with his hands. This charming painting is ascribed to the early part of the career of Turino Vanni, soon after 1390.

Andrea da Formigine.—In Rass. d'Arte, VIII, 1921, pp. 45-50 (4 figs.), L. Frati publishes data concerning the life and work of Andrea da Formigine. with special reference to the carved wooden panels of an altar in S. Gregorio in Bologna, which were executed in the middle of the sixteenth century and show the artist at his best.

A Statuette by Cozzarelli.—In Art in America, IX, 1921, pp. 95-101 (6 figs.). A. K. Porter publishes a statuette of Bacchus in the Winthrop collection. New York, which he attributes to the Sienese sculptor Cozzarelli. This attribution involves a study of the work hitherto attributed to that artist and a more careful distinction than has previously been made between his style and that of his master, Francesco di Giorgio.

The Buffalmaco Hypothesis.—In support of the hypothesis that the so-called Cecilia-Master should be identified with Buffalmaco O. Sirén offers new material in Burl. Mag. XXXVII, 1920, pp. 176-184 (4 pls.). (For previous discussion see Ibid. December, 1919—January, 1920). Most important are the ruined frescoes in the Badia di Settimo, Florence, which Ghiberti and subsequent writers say are the work of Buffalmaco. Though so badly defaced, the movement and the general lines of the drapery of the figures show the identity of the artist with the Cecilia-Master and make it possible to ascribe to this same Buffalmaco two more pictures, a Dominican saint, in the sacristy of S. Stefano, Florence, and St. John the Baptist, in Christ Church Library at Oxford.

Raphael.—An entire number of *Emporium*, LI, 1920, pp. 115–208 (4 pls.; 100 figs.), is devoted to an appreciation of the work of Raphael in commemoration of the fourth centenary of his death. L. Venturi discusses the character of the artist and the general progress of his artistic development through his short life. J. Rusconi analyzes the Deposition in the Borghese gallery. N. Tarchiani studies the drawings by the master. M. Scherillo studies him as a poet and his relationship to contemporary poets. And A. Lualdi discusses the development of music and the theatre at the time of Raphael and suggests that the flourishing condition of these arts at this time had no little influence upon Raphael's painting.

Raphael and Castiglione.—In Gaz. B.-A. II, 1921, pp. 209–214 (pl.; 2 figs.) R. DE LA SIZERANNE writes on the relationships between Raphael and Castiglione. Raphael came closer to the ideal of the author of the Cortegiano than any other artist of his day, and Castiglione worked with Raphael and furnished not a few of the ideas which the latter represented with paint.

The Borgia Apartments.—In Gaz. B.-A. II, 1920, pp. 353–366 (2 pls.; 8 figs.) J. Alazard discusses the work of Pinturicchio in the Borgia apartments of the Vatican. Pinturicchio does not show himself a philosopher in his work, but a colorist, succeeding best in the representation of gorgeous costumes and in the delineation of features which he has before him in visible models. The portrait of Pope Alexander VI in the fresco of the Resurrection is a paramount example of the kind of work in which Pinturicchio excelled.

A Drawing for One of the Vatican Stanze.—In Dedalo, I, 1920, pp. 305–311 (4 figs.), G. Fiocco discusses a drawing in the Galleria Querini Stampalia in Venice, a preliminary study for the Coronation of Charlemagne in the Stanza of the Incendio. The great importance of the work lies in the fact that while the finished painting contains no mark of the master's own hand, part of the drawing is actually by him and we can get from it the true spirit of the creator before it was hidden beneath the misinterpretation of the imitator.

A Portrait Group by Sebastiano del Piombo.—In Burl. Mag. XXXVII, 1920, p. 169 (pl.), T. Borenius publishes for the first time a reproduction of a group of four portraits painted by Sebastiano del Piombo in 1516, when he was strongly influenced by Raphael's style. Previous attempts at identification of the portraits are unsatisfactory and no other can at present be offered.

Bronzino.—In Dedalo, I, 1920, pp. 223-247 and 322-331 (2 pls.; 21 figs.), M. Tinti writes an analysis of the style of Bronzino, whom he characterizes as the Italian Ingres. Growing out of the art of Michelangelo and Pontormo, Bronzino developed a very different spirit; his calm, contemplative figures seem, as compared to the work of the two preceding artists, like a calm after a tempest. More and more he developed a sculptural quality, showing a strong influence of Greek marbles not only in occasional borrowing of the pose of a figure, but always in the quiet, serene dignity and impersonal expression. But in spite of this sculptural quality, Bronzino was also a great colorist, not in the sense of a Titian, but in the sense of the Florentines: his color is essentially decorative.

Notes on Giovanni Bellini.—In Burl. Mag. XXXVII, 1920, pp. 170-176, A. Symons writes an interpretation and appreciation of a number of Giovanni Bellini's paintings; their relationship to the work of Mantegna is especially emphasized.

A Fragment of Tintoretto's Paradise.—In Gaz. B.-A. II, 1920, pp. 375–384 (4 figs.), G. Soulier publishes a painting in the Sherman collection, Rome, which is not only of high merit in itself but also throws light upon the development of Tintoretto's painting of the glory of Paradise in the Ducal Palace, Venice. The sketches in the Louvre and in the Prado show early stages in the development; the Sherman painting gives us a detail of three musical angels, just above the Christ, produced in full size as if for immediate use in the final composition—and yet changes were made; these three figures are not faithfully reproduced in the complete painting.

Veronese Drawings.—In Burl. Mag. XXXVIII, 1921, pp. 54-59 (2 pls.), T. Borenius gives a catalogue raisonné of the drawings in pen and sepia by Paul Veronese that are known to him. In this class of drawings many small figures are grouped together on a single sheet and are often accompanied by notes in Veronese's hand.

Madonnas by Fiorenzo di Lorenzo.—In Dedalo, I, 1920, pp. 355–360 (pl.; 3 figs.), U. Gnoli points out the relationship between Pinturicchio's Madonna in the National Gallery, London and three by Fiorenzo di Lorenzo; the latter are in the National Gallery (the Salting Madonna), the Jaquemart-André Museum, Paris, and the Museum of Fine Arts, Boston. With reference to the Salting Madonna, it has previously been suggested that it is the source from which Pinturicchio drew his composition; but that the influence flowed in the opposite direction and that all three of the Fiorenzo Madonnas here in question were inspired by the one by Pinturicchio is shown by a study of the earlier works of Fiorenzo in Perugia; until he came under the sway of Pinturicchio, his work was of a very different cast.

Pictures at the Burlington Fine Arts Club.—In Burl. Mag. XXXVIII, 1921, pp. 131–138 (4 pls.), R. Fry discusses some of the most important paintings in this winter's exhibition at the Burlington Fine Arts Club. A predella of the Nativity by a minor artist of the school of Pesellino is unusually interesting in design. Two pictures from Sir Herbert Cook's collection are characteristic of Ercole de' Roberti and formed part of a series representing types of noble women. But the most interesting piece in the exhibition is Prince Paul of Serbia's panel by Piero di Cosimo representing a forest fire. Using as a basis this painting, the two panels in the Metropolitan Museum, and the Battle of the Centaurs and Lapiths belonging to Messrs. Ricketts and Shannon, the writer studies Piero's attitude toward life, science, and mythology, and the nature of his interest in the fantastic.

The Italian Renaissance Garden.—In Dedalo, I, 1920, pp. 368–391 (22 figs.), L. Dami describes the development of the Renaissance garden in Italy, growing out of small, simple arrangements inspired by the idyllic vision of nature which characterized the fourteenth century, into the complicated geometrical plantings, primarily architectonic, which reached their fullest development in the sixteenth century.

The Guelf Palace.—In Dedalo, I, 1920, pp. 250–262 (10 figs.), A. Lenst traces the history of this fine old palace in Florence begun in the thirteenth century and carried on through the Renaissance in additions by such men as Brunelleschi and Vasari. The proposed restoration of the building leads to the suggestion here of the changes that will be necessary to approximate the original appearance of the palace.

The Horne Collection.—In Dedalo, I, 1920, pp. 162–185 (23 figs.), C. Gamba writes on Herbert Horne's gift to Italy in 1916, consisting of his palace in Florence and his art collection housed in it. The little palace itself, formerly the palazzetto Corsi, is important as an example of Giuliano da San Gallo's work and a perfect model of the city home of modest dimensions, decorated with the most elegant sobriety in the tradition of Brunelleschi. Though the collection contains some works of first importance in the pure arts, its greatest interest lies in the fine examples of early furniture and household articles which the donor has carefully searched out during many years.

Titian's Lucretia and Tarquin.—In Z. Bild. K. XXXII, 1921, pp. 9–13 (pl.; 3 figs.), A. E. Popp analyzes Titian's painting of Lucretia and Tarquin in the Academy at Vienna. The composition, the lighting and the movement of the figures is completely out of keeping with Titian's treatment of half length figures; undoubtedly the painting as it appears today is only about half of the original canvas, which must have represented the subject in much the same way as his earlier treatment of it, some idea of which we may gain from Cornelis Cort's engraving. The Vienna painting bears the same relation to Titian's earlier representation of the subject as his Christ crowned with thorns in Munich bears to the master's treatment of the same subject in the Louvre: the Munich and Vienna conceptions are more calm, more restrained, and consequently more powerful.

A Diptych by Giovanni Bellini.—In L'Arte, XXIII, 1920, pp. 279–281 (2 figs.) A. RAVA gives a new attribution to a diptych in the Liechtenstein gallery, Vienna, which was formerly attributed to Antonello da Messina. Besides the fact that the diptych, with the busts of a man and his wife on the front side, and a deer on the reverse, bears sufficiently clear indications of the style of Giovanni Bellini, it is recognized as the work referred to in an inventory of the Vendramin collection, of 1565, where Bellini is mentioned as the author.

Bertoldo di Giovanni as a Medallist.—In Ber. Kunsts, XLII, 1921, pp. 25-29 (4 figs.) W. von Bode attributes to Bertoldo di Giovanni. the pupil of Donatello, a series of small circular plaques with representations in relief which E. Molinier assigned to an anonymous master of the North Italian school. Several reliefs by this artist are in the Berlin collection, and some especially fine examples are owned by M. G. Dreyfus of Paris. Bertoldo's plaques are marked by a rather flat and picturesquely handled half-relief, by a somewhat careless casting on a wax model, and by the numerous and small figures of his designs, somewhat indefinitely executed, but sufficiently characterized. subjects are taken from classical mythology. To the same artist should be assigned a stucco relief of the Crucifixion, cast from a lost bronze, which Bode once attributed to a Sienese artist. Ibid. XXXVII, 1916, p. 181 ff. resemblance of this stucco relief to a clay sketch by Donatello which has been found in the magazines of the Bargello, and to some of the works now attributed to Bertoldo, make it probable that he was the maker of the lost bronze. The variety of classical subjects in Bertoldo's work illustrates strikingly the direct influence which the literary knowledge and taste of Lorenzo de Medici exercised on the Florentine artists of his time.

A Renaissance Vase.—An example of the Renaissance imitation of Egyptian vases, whose beauty consists in richness of material and elegance of line, is published by G. Poggi in *Dedalo*, I, 1920, pp. 5–7 (pl.; fig.). It is a lapislazuli

vase executed in 1583 for Francesco de Medici. A drawing in the Uffizi and a documentary memorandum reveal the designer and the decorator of the vase. The design was drawn by B. Buontalenti and the gold ornaments were made by the Flemish goldsmith, Jacomo Delfe.

Venetian Bronzes.—In Dedalo, I, 1920, pp. 463-475 (12 figs.), G. NICODEMI publishes several small bronzes, objects of ornament or common use, such as ink wells, salt cellars and the like, of which Padua was the centre of production and Donatello the original inspiration. The development of the art as it spread to Brescia and is now represented in the Museo dell' Età Cristiana at Brescia is here discussed.

A Venetian Vase.—In Dedalo, I, 1920, pp. 248–249 (2 figs.), G. LORENZETTI publishes a small "pilgrim's flask" in the Museo Correr at Venice, which is of unusual importance because it is one of very few examples of early sixteenth century vases made entirely of "vetro lattimo," so called because of its milk-white color. The designs, taken probably from some engraving based on profane story, are beautifully executed and form an interesting commentary on Venetian life and costumes.

Quattrocento Painting near Rome.—In Boll. Arte, XIV, 1920, pp. 185–232 (7 pls.; 44 figs.), A. B. Calosso continues his discussion of the origins of painting of the quattrocento in the vicinity of Rome. The combined characteristics of the style of Umbria and the Marches appear in the works discussed, and the artists are, for the most part, indirectly connected with Gentile da Fabriano. The most important is Pietro Coleberti, whose signed frescoes in the little church of S. Caterina at Roccantica are here fully described and analyzed. Coleberti shows particularly close relationship with Ottaviano Nelli. On the basis of this series of frescoes other paintings may be more or less certainly attributed to the artist, particularly the Virgin of the Annunciation in the church of S. Benedetto at Piperno. The characteristics of pupils of Coleberti are discovered in a number of works, and a study of other artists more closely related to Gentile is made. Among the latter is Antonio da Alatri, author of a signed triptych in the Museum of S. Maria Maggiore in Alatri.

#### SPAIN

An Exhibition of Spanish Painting.—The comprehensive exhibition of Spanish painting recently held at Burlington House is described by C. J. Holmes in *Burl. Mag.* XXXVII, 1920, pp. 269–276 (3 pls.). The collection included examples from the fourteenth century down to modern times; among them were works by such masters as Bartolomé Vermejo, Fernando Gallegos, Luis de Morales, El Greco, and Goya.

Velazquez.—In Z. Bild. K. XXXII, 1921, pp. 36-39 (5 figs.), A. L. MAYER publishes five paintings which he ascribes to Velazquez. Three are attributed to his younger activity: a half-length figure of the apostle Paul in the Gil collection, Barcelona, the portrait of the poet Gongora in a private collection, and the portrait of Diego Rioja in Madrid. Two show the later style of the master, after his first journey to Italy: these are the spirited portrait of a banner-bearer and the portrait of a young man—the latter lately acquired by the Louvre.

El Greco.—Several paintings and a drawing attributable to El Greco are

published by A. L. MAYER in Z. Bild. K. XXXII, 1921, pp. 55–60 (7 figs.). The most interesting of these, perhaps, is the St. Veronica lately acquired by Kuno Kocherthaler, Madrid, for which the painter's mistress doubtless served as model.

Catalan Art in Sardinia.—In L'Arte, XXIII, 1920, pp. 284–288 (2 figs.), E. Brunelli shows that the author of the ancona of the Visitation in the gallery at Cagliari, signed Johaes Barcels, is to be identified with Giovanni Figuera, who worked in Sardinia in the middle of the fifteenth century. This painting, together with the same artist's ancona of S. Bernardino, is the principal document of the penetration of Catalan influence into the painting of Sardinia and served as a model for native artists.

## FRANCE

Diane de Poitiers and Gabrielle d'Estrées.—In Gaz. B.-A. II, 1920, pp. 157–180 (15 figs.) and pp. 249–266 (4 figs.), S. Reinach discusses a number of sixteenth century French and Flemish paintings in which Diane de Poitiers or Gabrielle d'Estrées figures. Frequently the painting in which Gabrielle appears is merely a copy of an earlier one where Diane is the heroine.

## BELGIUM AND HOLLAND

Reynier and Claes Hals.—In Burl. Mag. XXXVIII, 1921, pp. 92–97 (2 pls.), G. Hofstede de Groot publishes paintings by Reynier and Claes Hals, two sons of Frans Hals, which show them to have retained but little of the quality of their father's work. Two small half-length figures at The Hague by Reynier are most carefully finished, with no dash of technique. And the village view signed by Claes shows close resemblance to the work of a group of Ruisdael's pupils. Doubt is east by this writer upon the painting of a girl reading in the Mauritshuis; but A. Bredius (Ibid. pp. 138–143) gives documentary evidence to prove that the signature on this picture is really that of Claes Hals. T. Borenius (Ibid. p. 143; pl.), contributes to the reconstruction of this artist's work by calling attention to a painting of The Huckster, owned by Mr. E. Bolton, which bears the same signature as is found on the Mauritshuis picture.

Jan Gossaert.—The early work of Jan Gossaert is discussed by F. Winkler in Jb. Preuss. Kunsts. XLII, 1921, pp. 5–19 (pl.; 10 figs.). The eclectic tendency of the artist appears very early: he is influenced by Dürer's drawings, paintings of Jan van Eyck, Gerard David and Leonardo, the Bruges-Ghent miniatures, and the antique.

A Painting by Matsys.—A portrait of the "Ugliest Princess in History," Duchess Margaret of Tyrol, by Quentin Matsys, is discussed by W. A. Grohman in Burl. Mag. XXXVIII, 1921, pp. 172–178 (pl.). The painting, which now belongs to Mr. Hugh Blaker, is evidently a later work than the drawing of the duchess which has been wrongly, it would seem, attributed to Leonardo da Vinci.

Jacob van Utrecht.—To the signed paintings by Jacob van Utrecht L. Baldass in Z. Bild. K. XXXI, 1920, pp. 241-247 (9 figs.), adds a few others that betray the style of the same master. They are the portrait of a man, dated 1532, in the Hoogendijk collection, a triptych of the Madonna with

donors in the Riga museum, an Adoration of the Kings in Vienna, with a replica of it in Munich, and a triptych of the Mourning of Christ in the gallery at Schleissheim.

A Still-Life by Vermeer.—In Burl. Mag. XXXVII, 1920, pp. 169–170 (pl.), J. O. Kronig publishes a still-life painting (its ownership is not given) which he attributes to Jan Vermeer of Delft on the basis of its resemblance to the still-life details in his known pictures. Such a subject as this, a pure still-life, is what we should expect Vermeer to have sometimes painted and it is only surprising that no example has previously been found.

Brueghel's Adoration of the Kings.—One of the most important works of Pieter Brueghel the Elder is his Adoration of the Kings, which is now being secured for the National Gallery, London. Brueghel's revolt against the tendency toward meaningless splendor and his indulgence in satire reach their climax in this painting, where the Magi, the by-standers, and Joseph are shown in a much more likely, if far less dignified, light than is usual with paintings of this period—or any other. (C. J. Holmes, Burl. Mag. XXXVIII, 1921, p. 53; pl.)

Rubens' Judith.—A short study of Rubens' treatment of the subject of Judith with the head of Holofernes is made by R. Oldenbourg in Z. Bild. K. XXXII, 1921, pp. 66–68 (2 figs.). In contrast to the Flemish love of fleshly opulence and baroque expression which characterizes Rubens' treatment of the subject in Braunschweig, the example in the collection of Maria Borghesani at Bologna, though very similar to the earlier painting in composition, is more restrained and passive, preparing the way for Titian's influence, which came a little later.

A Painting by Willem Buytewechs.—A picture of an open-air banquet, now in the Kaiser Friedrich Museum, has been tentatively attributed to Willem Buytewechs. In *Ber. Kunsts.* XLII, 1921, pp. 44–48 (4 figs.) K. Zwege von Manteuffel confirms this attribution, finding evidence for it in the resemblance of the painting to signed drawings by this artist. One of these, in Berlin, shows a seated figure in an unusual posture which is almost a replica of that of a principal figure in the painting.

#### GERMANY

A Fourteenth Century Panel in Berlin.—In Ber. Kunsts. XLII, 1921, pp. 81-87 (6 figs.) W. Mannowski discusses a small German panel of the Nativity recently purchased by the Kaiser Friedrich Museum. In many external details it shows obvious and direct imitation of Giotto's treatment of the same subject in the Arena Chapel at Padua. The spirit and style of the picture, however, associate it with a Bohemian painting of the Nativity in the Stift Hohenfurt in Bohemia, with a Crucifixion in the Boehler collection in Munich, and with paintings of the Virgin and Child adored by Angels and of the Crucifixion in the National Museum in Munich. The Berlin painting is to be attributed to a Bavarian painter of the fourteenth century. It is almost certain that he saw the Arena Chapel himself.

Miniatures attributed to Dürer.—In Burl. Mag. XXXVII, 1920 pp. 61-62, C. Dodgson disputes the recent attribution to Dürer of a repetition in illumination of the artist's Little Passion. These miniatures, some of them bearing

Dürer's monogram, are in a book said to have been lately discovered at Nuremberg. Some of them are reproduced by M. H. Delarue in *Pages d'Art*, May, 1920. Aside from the fact that Dürer would not have repeated his compositions, these miniatures are lacking in the life and spontaneity of Dürer's work; they are the production of a respectable Nuremberg craftsman, working to order.

Dürer and the Antique.—In Jb. Preuss. Kunsts. XLII, 1921, pp. 34–50 (11 figs.), M. HAUTTMANN discusses Dürer's interest in the antique, which began in about 1497. It is significant that this interest was not confined to Dürer's sojourn in Italy, but that it developed in Germany. The artist moved with the trend of humanistic study in his own country, and it was in the collection of antiquities in Augsburg that he found inspiration for not a few of his figures and compositions.

Dürer's Early Drawings.—In Jb. Preuss. Kunsts. XLI, 1920, pp. 208-213-(pl.; fig.), E. Bock discusses some of the early drawings of Dürer, particularly a pen drawing in the cabinet of copper engravings at Berlin. The subject is uncertain, but probably it is the design for the dedication page of a book. A point of special interest lies in the fact that the drawing is reversed, as is obvious from the Dürer monogram, thus indicating that the drawing was being prepared for making a wood engraving.

Dürer's Apollos.—A study of Dürer's drawings and engravings in which appear Apollo and Diana or Apollo alone is made by E. Panofsky in Jb. Preuss, Kunsts. XLI, 1920, pp. 359–377 (10 figs.), with special reference to the master's relationship to Barbari. It is shown that here as in many other cases the influence came from the Italian artist to the German, rather than vice versa. But Barbari's representation of Apollo and Diana served Dürer as a suggestion or incitation rather than as a model. Barbari was influential in directing Dürer to new problems, rather than in giving him new solutions.

Augsburg Sculpture.—Two of the most important early Renaissance sculptors of Augsburg, Adolf and Hans Daucher, are treated by P. M. Halm in Jb. Preuss. Kunsts. XLI, 1920, pp. 214–343 (2 pls.; 73 figs.). A very significant feature of this period was the adoption of a new kind of marble with warm tone and with a fine grain which made it particularly suitable for careful, detailed work. The father and son here discussed were pioneers in the use of the new material. The investigation concerning Adolf Daucher begins with the high altar of the St. Ann Church at Annaberg in the Erzgebirge, since it is the only work which can be attributed to him on documentary evidence. But more important than this altar is the sculptural decoration in the Fugger Chapel at Augsburg, which is here ascribed to the master. Of the son, Hans Daucher, more signed and dated works are known, extending over the period 1518–1527. These include a number of portrait medallions and plaques, while not a few grave reliefs and other smaller sculptures may be assigned to him.

Johannes Vest.—Some fundamental material for the study of the Vest family in their relation to late Renaissance terra-cotta work is given by K. Simon in Mh. f. Kunstw. XIV, 1921, pp. 56-69 (21 figs.). The member of the family of whom special account is here taken is Johannes' Vest von Creussen. There are only two signed reliefs by this artist—one of them dated 1599—but on the basis of these two others may quite certainly be assigned to him.

Sixteenth Century German Tapestries.—In Mh. f. Kunstw. XIV, 1921, pp. 70–96 (2 pls.), H. Göbel contributes to the history of the manufacture of pictorial tapestries in Torgau and Weimar by a study of the artists patronized by Johann Friedrich der Grossmütige. The interest of this prince in tapestries amounted almost to a passion in his later life, and the three most important artists employed by him were Henrich von der Hohenmuel, Hugo vom Thale, and Seger Bombeck.

A Suit of Armor of the Period of Maximilian.—In Ber. Kunsts. XLII, 1921, pp. 42–44 (2 figs.) P. Post describes an exceptionally complete and finely executed suit of armor belonging to the time of the emperor Maximilian which has recently been acquired by the Zeughaus in Berlin. It is to be attributed to an armorer of Augsburg or Nuremberg.

## AMERICAN ARCHAEOLOGY

#### GENERAL AND MISCELLANEOUS

Metals in Prehistoric America.—In Mus. J. XII, 1921, pp. 35–42 (pl.; fig.) W. C. F(ARABEE) gives a brief account of the use of metals in prehistoric America, with particular emphasis on bronze in South America. The varying proportions of copper and tin in South American bronze are probably to be attributed to technical considerations in the manufacture of various kinds of utensils and ornaments. Among the objects of prehistoric American metal recently acquired by the University of Pennsylvania Museum is a knife cast in solid bronze. A snake of the same material is represented on the back of the blade, and the handle is ornamented with a flamingo in solid gold. The technique of casting gold is illustrated by two gold bells in the same museum. One is in the form of a bat standing in a loop of gold wire. The other bell is surmounted by an ornament in the form of an animal, with a similar loop of wire.

Marble Vases from the Ulua Valley.—In Mus. J. XII, 1921, pp. 53-74 (22 figs.) G. B. G(ORDON) describes a series of marble vases from the Ulua Valley in Honduras, now in the collection of the University of Pennsylvania. Most of them have handles shaped in imitation of animals. The sides of the vases are ornamented with a rich design in low relief, of which the principal elements are abstractions from animal forms.

Publications of the Bureau of American Ethnology.—The monumental product of the year for the bureau has been Ethnology of the Kwakintl, based on data collected by George Hunt, part 1, (1921) by Franz Boas, forming the 35th Annual Report of the Bureau of American Ethnology, 1913–14, 750 pp. This work will set a new precedent in methods of ethnological research since the customs and beliefs are recorded in original text with spaced-off translations on the same page, providing simultaneously a basis for linguistic study and a more correct account of native customs than if they were recorded in English alone. The descriptions of manufacture and use of articles of utility include practically every product of handicraft, not even excepting stone and bone work. Industries, hunting, fishing and food gathering, preservation of food, recipes for cooking, beliefs and customs concerning food and utensils,

prayers, weather charms, taboos, customs of birth, treatment of infants, death and souls and shamanism are discussed. Feasts, social position and marriage and finally swear-words form a concluding section.

Dr. Truman Michelson's contribution: The Owl Sacred Pack of the Fox Indians (Bulletin 72, Bureau of American Ethnology, Washington, 1921, 83 pp.; 4 pls.; 8vo) is another ethnological text giving an account of an individual sacred medicine bundle of the Fox (Algonkian) Indians, accompanied by a short linguistic discussion and list of stems.

Recent Publications of the Heve Museum, New York.—Cuba Before Columbus, by M. R. HARRINGTON (Indian notes and monographs, 1921 part 1. vols, 1 and 2: 507 pp.: 109 pls.: 111 figs.) is an extensive monograph giving the results of several expeditions to Cuba in 1915 and 1919. Excellently illustrated and well provided with maps, this work focuses the conclusions of much archaeological research in Cuba by various authors. The principal conclusion is. that previous suspicions by Fewkes of a dual culture composition on the island are correctly conceived. Harrington defines two cultures: a primitive phase, which he terms the Ciboney, whose remains are found in caves on the eastern coast of the island and sparingly in the whole interior, and a localized culture. much more advanced, affiliated with Tainan remains in the other West Indian Islands, Porto Rico, Jamaica and the Bahamas. The former contrasts between the two are great. They are admirably shown in a sketch illustrating the different manufactures (pl. CVIII). The Tainan peoples had artificially deformed skulls, were well advanced in ceramics and skillful makers of ornaments. the Cibonev had undeformed skulls, used shells for bowls and shell gouges and The inference is that the Taino overran the primitive Cibonev. Resemblances between the latter group and the peninsular culture of Florida are strong, thus adding another link to the chain of sequences connecting the West Indian cultures with those of the extreme Southeastern states (p. 422). Yet Harrington discredits any indication of relation between Cuba and the Maya of Yucatan (p. 421). The Taino culture emanated from the northeastern part of South America where both Carib and Arawak may still be found. Part 2 of this important work, still to appear, is announced to deal with the living Indian descendants in Cuba and the Tainan remains.

Besides the second edition (1921) of the List of Publications of the Museum of the American Indian, Heye Foundation (37 pp.), the following octavo pamphlet is off the press since the last reviews were given: Bladed Warclubs from British Guiana, by M. H. Saville, 1921 (37 pp.; 4 pls.; 2 figs.). The author describes several stone-headed clubs conforming to the type found in the West Indies and related with some degree of probability to the stone celts occurring with great frequency as far north as southern New England.

Miscellaneous Articles on American Archaeology.—In the American Anthropologist XXIII, 1921, No. 2, are four articles of archaeological interest. 'Further Notes on Isleta,' by Elsie Clews Parsons; 'An Unusual Group of Mounds in North Dakota,' by George F. Will; 'The Need of Archaeologic Research in the Middle West,' by Frederick Houghton, and 'Aboriginal Sites near "Teaoga," now Athens, Pennsylvania,' Part 1, by Louise Welles Murray.







